

HELLENIC EXCHANGES – ATHENS STOCK EXCHANGE S.A.

SIX MONTH FINANCIAL REPORT

For the period 1 January 2018 – 30 June 2018

In accordance with the International Financial Reporting Standards

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1. DECLARATIONS BY MEMBERS OF THE BOARD OF DIRECTORS

(in accordance with article 4 of Law 3556/2007)



WE DECLARE THAT

- 1. to the best of our knowledge, the attached six month Financial Statements of the Group and the Company, which have been prepared in accordance with the International Financial Accounting Standards in effect, reflect in a true manner the assets, liabilities and equity on 30.06.2018 and the results for the first half of 2018 of HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A. (ATHEX), as well as of the companies that are included in the consolidation taken as a whole;
- 2. to the best of our knowledge, the attached report of the Board of Directors for the first half of 2018 reports in a truthful manner the performance and position of HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A. (ATHEX), as well as of the companies that are included in the consolidation taken as a whole, including a description of the main risks and uncertainties that they face;
- to the best of our knowledge, the attached first half 2018 Financial Statements are those that have been approved by the Board of Directors of HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A. (ATHEX) on 30.07.2018 and have been published by being uploaded on the internet, at www.athexgroup.gr.

Athens, 30 July 2018

THE CHAIRMAN OF THE BoD THE CHIEF EXECUTIVE OFFICER THE MEMBER OF THE BoD

GEORGE HANDJINICOLAOU ID: X-501829 SOCRATES LAZARIDIS ID: AK-218278 NIKOLAOS MYLONAS ID: AK-088810



2. REPORT OF THE BOARD OF DIRECTORS

OF

"HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A." FOR THE FIRST HALF OF 2018 (in accordance with article 5 of Law 3556/2007)



The Board of Directors of HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE SA (Athens Exchange or ATHEX or the Company) publishes its report on the six month separate and consolidated Financial Statements for the period that ended on 30.06.2018, in accordance with article 136 of Codified Law 2190/1920 and article 5 of Law 3556/2007.

The six month separate and consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards that were adopted by the European Union.

The Greek capital market

The Athens Exchange General Index closed on 30.06.2018 at 757.57 points, 8% lower than the close at the end of the corresponding period last year (823.74 points). The average capitalization of the market was ξ 55.7bn, increased by 17.3% compared to the 1st half of 2017 (ξ 47.5bn).

The total value of transactions in the 1st half of 2018 (\in 8.31bn) is 13.7% higher compared to the corresponding period last year (\in 7.31bn), while the average daily traded value was \in 68.1m compared to \in 58.9m in the 1st half of 2017, increased by 15.6%. The average daily traded volume decreased by 43.2% (48.5m shares vs 85.5m shares).

In the derivatives market, total trading activity dropped by 26.9% (1st half 2018: 7.6m contracts, 1st half 2017: 10.4m), while average daily traded volume dropped by 25.7% (62.6 thousand contracts vs. 84.2 thousand).

Business Development

Organized market

New listings

In the 1st half of 2018 the listing of the common corporate bonds by GEKTERNA ($\leq 120m$ raised), CORAL ($\leq 90m$ raised) and B&F ($\leq 25m$ raised) took place in the Fixed Income Segment of the Athens Exchange.

The issue of all of the abovementioned corporate bonds took place by public offer, using the EBB [Electronic Book Building] service.

Significant corporate actions – Rights issues

- HALCOR merged by absorbing the non-listed company ELVAL and changed its name to ELVALHALCOR.
- ATTICA BANK increased its share capital through the exercise of the preemption right by existing shareholders, raising a total of €88.9m.
- TERNA ENERGY raised its share capital in cash, and with existing shareholders waiving their preemption right, raising a total of €41.3m.
- PIPEWORKS TZIRAKIAN PROFIL increased its share capital by capitalizing obligations and with existing shareholders waiving their preemption right in favor of creditors.
- NIKAS and FORTHNET listed new shares resulting from the conversion of convertible bonds.
- FOURLIS and COCA-COLA HBC AG listed new shares resulting from share capital increases due to the exercise of stock options.
- March 2018 Support of the proposal to buy out the Hellenic Certificates of Mermeren Kombinat Ad Prilep by PAVLIDES MARBLE – GRANITE.

Listed companies forced buyouts (squeeze outs)

June 2018: The squeeze out of the remaining shareholders of the listed company ATHINA was completed.



June 2018: The squeeze out of the remaining shareholders of the listed companies KORRES has begun, a process that is expected to be completed in July.

Alternative market

In February 2018, the corporate bond of DELTA TECHNIKI began trading in the Fixed Income segment. The bond was covered by private placement and the total amount raised was €6.5m.

In March 2018 FOODLINK increased its share capital, with shareholders exercising their preemption right, raising €3m.

Market promotion

As part of the activity of the Athens Exchange Group to improve the promotion and promote the Greek capital market, expand the investor network and strengthen the contacts between listed companies and fund managers abroad, the Athens Exchange organized the following events:

- In April 2018 the 1st ATHEX Mid-Cap Conference was organized in Athens. The Conference was organized with the aim of further promoting mid-cap listed companies to the investment community, increase coverage by (sell-side) brokerage analysts and improve the trading velocity of their stocks. Through the 350 one-on-one meetings that took place during the conference, the 16 participating Athens Exchange listed companies had the opportunity to present to Greek and foreign investment managers and analysts their business developments and prospects. In addition, during the conference presentations were made by market participants.
- In June 2018 the 7th Greek Investment Forum was organized in New York, in collaboration with the American-Hellenic Chamber of Commerce and Enterprise Greece. In the Greek delegation 23 companies listed on the Athens Exchange participated, whose representatives had the opportunity during the approximately 400 meetings that took place, to present their strategy and investment plans to institutional investors. As part of the Forum, a presentation titled "Greece back on the growth path."

Besides the Forum, the organization was combined with visits to Washington DC and Chicago where delegates met with business and state authorities and influence groups.

At the same time, during the 1st half of 2018 the Athens Exchange continued its contacts with the business community, and had the opportunity to present to interested companies its services and products, its markets (Main Market and Alternative Market), as well as inform them about the possibilities for financing through the issuance of corporate bonds.

In addition, during the 1st half of 2018, the Athens Exchange supported the 1st Business Idea Competition by the Agricultural University of Athens in the process to find mentors and connect with the business ecosystem. The mentors that were approached by the Athens Exchange assisted the teams mainly with the financial aspect of their business plan, and market development of the idea. The technical support of the ideas was assumed by professors of the Agricultural University. In addition, 3 executives of the Athens Exchange supported the competition by participating as mentors.

At the same time, the Exchange provided space for events and meetings as part of the contest, and hosted the final awards ceremony. The winning teams received cash prizes which were sponsored by the Athens Exchange.

Through this initiative, the aim of the Exchange was not only to help the teams develop initiative, but also to connect people and market institutions from various areas and facilitate their collaboration in order to develop entrepreneurship.

Finally the Athens Exchange, in support of the Hellenic Fund and Asset Management Association, provided its premises in order for listed companies to make their presentations. As part of this effort, 14 listed companies presented their results, their strategy for development and prospects for growth.



Regulation (EU) 909/2014 (CSDR) – Strategic adjustment by ATHEXCSD to the new environment

Regulation (EU) 909/2014 (CSDR) "on improving securities settlement in the European Union and on central securities depositories" is part of the EU's European integration package in the field of post-trading services and the establishment of single market conditions. This Regulation affects the operation of the Greek capital market by introducing significant changes through: a) the liberalization of the Central Security Depository services being introduced at the EU level, and b) through the adoption of omnibus accounts for safekeeping securities.

Within the abovementioned framework, ATHEXCSD actively participates in the adaptation of the Greek capital market to the new environment, especially concerning the timely licensing of the company in accordance with the Regulation within 2019, provided that the draft law of the Ministry of Finance on the adaptation of Greek law to the provision of the Regulation in question ("CSDR Law"), which was put to public consultation from 15 to 25.7.2017, is voted in 2018.

In particular, in the first half of 2018 ATHEXCSD actively participated or completed the following tasks:

- Preparatory work by ATHEXCSD in order to implement the transitional provisions of the abovementioned CSDR law on time after it is enacted.
- Implementation of compliance actions by ATHEXCSD in the context of its licensing process in accordance with the CSDR Regulation
- Review the CSDR Level 2 regulatory & technical standards concerning the implementation of measures to deal with settlement discipline that were published by the European Commission in May 2018, for the purposes of analyzing the impact and designing/implementing the compliance tasks It is noted that the relevant standards are expected to go into effect two (2) years after a twenty (20) day period following their publication in the Official Journal of the European Union.

Project to update DSS Account information by Operators, in accordance with Decisions 1/736/2.11.2015 (Government Gazette B' 2558/26.11.2015) & 7/759/29.6.2016 (Government Gazette B' 2130/11.07.2016) of the Board of Directors of the Hellenic Capital Market Commission and Decision 6/27.06.2016 of the Board of Directors of ATHEXCSD, in effect since 30.06.2016

In accordance with the relevant decisions of the Board of Directors of the Hellenic Capital Market Commission and ATHEXCSD, in 2018 periodic (monthly and every 4 months) audits were carried out on the correctness of the registrations in the active Investor Shares in the Dematerialized Securities System (DSS) by ATHEXCSD and corresponding information of DSS Operators, in order for the relevant data maintained in DSS in accordance with the existing regulatory framework to be updated.

Progress on the tasks of this project is also monitored through a questionnaire to DSS Operators every 4 months (January, May and September) of each year. All relevant tasks are part of the preparation of the migration of Dematerialized Securities System (DSS) to the new environment under the CSD Regulation that will take place with the granting of the license to operate a central securities depository to ATHEXCSD in accordance with the Regulation in question.

Completing the necessary adaptations to fulfill the obligations of the companies of the Athens Exchange Group and of participants in the Greek market, especially ATHEXCSD and DSS Operators, concerning the automatic exchange of financial information in accordance with relevant legislation

The relevant tasks and projects concern:

- The agreement between Greece and the USA to apply FATCA (Foreign Account Tax Compliance Act), as incorporated into Greek law with law 4493/2017 (Government Gazette A' 164/31.10.2017)
- Regulation 2011/16/EU as modified by Regulation 2014/107/EU, as incorporated into Greek law with law 4170/2013 and law 4378/2016.
- The OECD Multilateral Competent Authority Agreement ("Common Reference Standard"), as incorporated into Greek law with law 4428/2016.



Based on the above, the following reports were submitted by ATHEXCSD concerning the portfolios kept in the special account:

- June 2018 Submission of the 1st report in application of the FATCA legislation, in accordance with Ministerial Circular 1094/21.05.2018 (Government Gazette B' 1891/24.05.2018) decision of the Head of AADE [Independent Public Revenue Authority].
- June 2018 Submission of the 2nd report for 2017, in implementation of the Multilateral Agreement by the Relevant Authorities of OECD ("Common Reporting Standard") and Directive 2011/16/EU as modified by Directive 2014/107/EU, in accordance with Ministerial Circular 1135/2017, 1137/2017, 1090/2018 & 1102/2018.

Developing the AXIAlei service

Responding to the requirement that all legal entities that carry out transactions on transferable securities starting on 3.1.2018 need to issue a Legal Entity Identifier (LEI) code, during the 1st half of 2018 in accordance with the relevant declaration by ESMA of 27.12.2017 and the Hellenic Capital Market Commission as part of the application of the MiFID II Directive and the MiFIR Regulation, ATHEXCSD successfully provided this service.

In particular, in the first half of 2018:

- More than 850 new LEI codes were issued by ATHEXCSD
- 488 LEI codes were renewed by ATHEXCSD
- 9 LEI codes were transferred from another provided to ATHEXCSD
- 7 LEI codes were transferred from ATHEXCSD to another provider

Development of a data warehouse for risk management data

In order to make possible the storage and handling of a large volume of historical data that concern risk management, the project of developing a data warehouse that had begun in 2017 was completed.

Besides keeping data, the aim is to make it possible to gather and combine information from different sources, reduce the time required for staff, and create reports in order to expand the amount of information being disseminated.

Within the next few months the design and implementation of reports that will to a large extent automate the production and dissemination of information to investors in accordance with international standards, as well as specialized data to the regulatory authority.

Annual certification of the risk management models

In accordance with article 49 of Regulation (EU) 648/2012 (EMIR), an annual audit of the risk management models applied by ATHEXClear must be carried out by a specialized independent consultant.

During the 1st half of 2018 the assignment of the project to a specialized independent consultant was completed, while as part of the implementation of the project, all necessary data and clarifications are being provided to the consultant, in order to understand and evaluate all risk management models.

At the same time, the consultant is examining proposals that aim to improve the models in order for them to be adopted in the immediate future.

Other projects

During the 1st half of 2018 a number of supplementary projects was implemented, with the most important of those being the following:

• Update the information mentioned on the website of the Group concerning clearing and risk management, and provide all information in English.



- Participation in the semi-annual audits of the Target 2 emergency procedure.
- Participation in the annual audit of the business continuity procedure of the Group.
- Improvements in the Clearing System in order to require the existence of LEI in the derivatives position accounts of legal person and to cover the relevant obligation of the EMIR-TR service.
- Improve the methodology for calculating two-day risk for corporate bonds.

Besides the daily tasks of the Risk Management & Clearing Divisions that aim at the smooth functioning of the market, in 2018 a number of projects are being implemented with the aimed at:

• Improving the services / products provided.

Market operation and development

In application of the MiFID II Directive, in the previous year the operation, the services provided and by extension the ATHEX regulatory framework and supporting infrastructure were restructured.

As such, the 1st half of 2018 was the first period where all of the above were implemented, out of which arose the need to implement and put in operation significant improvements and adjustments in the systems and to the new services which were combined with the corresponding adjustments in the regulatory framework.

Within the framework of the Strategic Planning Axis referring to "Improvements – expansion of products and services provided – mobilization of participants", a preliminary feasibility study was drafted concerning the formulation and provision by ATHEX of a package of services that are summarized in the "Pre-market Service" which concerns those services that deal with securities trading after the completion of the primary allocation (IPO) and up until the official listing and trading in a regulated market of MTF. The Pre-market Service is included in the upcoming revision of the Athens Exchange Rulebook.

Systems development

The Systems Development Division, besides the continuous upgrade of the DSS and OASIS systems, dealt with a significant number of development projects in the 1st half of 2018 which are mentioned below:

Energy derivatives trading system – ATM; Surveillance System; Surveillance System – Hellenic Capital Market Commission application; Development and transfer to production of RISK version 1.12; Development and put into production of RISK version 1.13; MarketOrder OMS; Development and support of MarketOrder OMS especially concerning the operation of the XNET network and EBB [Electronic Book Building]; Development and support of MarketOrder OMS especially concerning the Auction Platform of DESFA [Hellenic Gas Transmission System Operation]; SPOT trading system for the Energy Exchange; MarketOrder Application Server (XOAS); Introduction of Identity Management (IDM); ATHEX Office – Market Office; InBroker; Implementation of new functionality in IB lite client and IB lite IR; implementation of new functionality in IB lite client IR, IB back-end APIs and services; Upgrade of the InBroker infrastructure; Adaptation to the MiFID II Directive, GDPR and ROOTS project.

Information security

There was significant progress towards completing the "Project to Manage Information Security". In particular, a significant number of processes and policies were delivered by the contractor consortium, after being submitted to the Management of Information Security Committee.

Information management and support

The new Active-Active Infrastructure Architecture is being implemented by the following procurement and installation projects:

- Project to procure & install active-active data storage equipment
- Project to procure fiber optic telecommunications circuits & metro Ethernet



- Project to procure fiber optic lighting equipment (DWDM)
- Procurement of servers for the virtualized environment (VMWARE)
- Project to procure & install network equipment on the intranet and ATHEXnet.

Successful completion of the 5th Annual Test of the Business Continuity Plan of the Athens Exchange Group, which was carried out on Saturday 30.06.2018. The successfully pre-test by executives of the Company took place on Saturday 16.06.2018.

Comment on the results

First Half 2018 results of the Group

Turnover in the 1st half of 2018 for the Athens Exchange Group was ≤ 14.7 m compared to ≤ 13.1 m in the 1st half of 2017, increased by 12.7%. Approximately 54% of the turnover of the Group is from fees on trading, clearing and settlement of trades on the Athens Exchange.

In the 1st half of 2018 EBITDA was €5.3m compared to €3.8m in the 1st half of 2017, increased by 41.8%.

Earnings Before Interest and Taxes (EBIT) in were €3.7m vs. €2.3m in the 1st half of 2017, increased by 62.6%.

After deducting €1.2m in income tax, the net after tax earnings of the Athens Exchange Group amounted to €2.8m compared to €1.5m, increased by 80.7%. After including Other Comprehensive Income (valuation of shares), earnings amount to €2.7m compared to €1.6m in the 1^{st} half of 2017, increased by 69.7%.

Parent Company of the Athens Exchange Group

For the parent company, turnover was $\notin 7.2 \text{ m}$ vs. $\notin 6.8 \text{m}$, increased by 5.8% compared to the 1st half of 2017, while net after tax profits were $\notin 1.8 \text{m}$ in the 1st half 2018 compared to $\notin 1.5 \text{m}$ in the 1st half of 2017, increased by 20.6%, due to the increase in trading in the 1st half of 2018 compared to the corresponding period last year.

Tax audit of the Company for fiscal years 2008, 2009 and 2010

On 11.7.2016 the Company was notified about the acts of temporary corrective tax determination and audit findings note by the Large Corporation Audit Center (KEMEP). This particular tax audit was carried out for tax years 2008, 2009 and 2010 in accordance with audit order 760/4/1118/22.12.2015. In total, the audit resulted in taxes and additional taxes for submitting an incorrect tax declaration amounting to \leq 1,689 thousand, out of which \leq 603 thousand are additional taxes.

On 29.7.2016 the Company submitted an opinion report – memo to KEMEP, expressing its opposing view to the abovementioned Note. In its reply, KEMEP reduced the accounting differences tax by ≤ 127 thousand, reducing the total amount to $\leq 1,562$ thousand.

On 30.9.2016, within the time limits of the law, the Company filed an administrative appeal in accordance with article 63 of Law 4174/2013 at the Dispute Settlement Directorate (DED) of the General Secretariat of Public Revenue (GGDE), against the findings of the tax audit, and at the same time paid 100% of the amount due i.e. €1,562 thousand, which is shown in other claims in the statement of financial position of 31.12.2017, in order to avoid the accumulation, calculation and assessment of interest for the duration of the suspension of the sum due (article 53 §1 of law 4174/2013).

The DED finding, which was received on 15.2.2017, reduces the total amount by ξ 579 thousand, to ξ 983 thousand. This difference has already been offset with an equal amount of ATHEX tax obligations by the appropriate tax office. The Company has further appealed (16.03.2017) to the Administrative Courts in order to reduce the tax and penalties assessed by the tax audit. The Company received summons and appeared in the Administrative Court of Appeal to adjudicate the case on 6.3.2018. The decision is expected within the next few months.



Available-for-sale financial assets

The Company held in its portfolio 13,365,316 shares that resulted from the Piraeus Bank bond exchange. Next, through a 1:20 reverse split the number of shares became $668,265 \times \epsilon = \epsilon 4,009,590$. On 30.06.2018 the share price closed at $\epsilon 2.92$ and as a result the valuation of the Bank of Piraeus shares was $\epsilon 1,951,333.80$, a loss of $\epsilon 100,239.75$ compared to the valuation on 31.12.2017 which, in accordance with IAS 39, is reported in Other Comprehensive Income (OCI).

Third party balances in ATHEXClear bank accounts

In order to comply with the corporate governance framework determined by Regulation (EU) 648/2012 of the European Parliament and Council (EMIR Regulation), the Company keeps all cash collateral that are being managed by the Company and concern the cash market and the derivatives market, as well as its own cash balances, in an account it maintains at the Bank of Greece (BoG) as a direct participant over the internet to the TARGET2-GR Express Transfer of Capital and Settlement System in real time (TARGET2-GR).

Therefore its own cash balance and the balances of third parties (margins) are deposited in the same account that ATHEXClear maintains at the Bank of Greece, and as a result a separation of the assets is necessary in order for the collateral that ATHEXClear collects to be shown separately in the current assets of 30.06.2018. In the Statement of Financial Position of 30.06.2018, they are reported as equal amounts in both current assets and short term liabilities as "third party balances at the bank account of the company" and concern exclusively the margins in the derivatives market that were deposited in the bank account maintained by ATHEXClear at the BoG on 30.06.2018.

On 30.06.2018 at the BoG bank account cash market margins of €111.5m and derivatives market margins of €50.4m had been deposited.

Share Capital

The Company is listed on Athens Exchange, and its shares are traded in the ATHEX cash market, in the Main Market segment. The shares of the Company are common registered, with a voting right.

With the decision of the 1^{st} Repetitive General Meeting of 13.06.2018 to a) return \pounds 0.15 per share with an equal reduction in the stock's par value and b) cancel 251,000 shares in treasury stock, the share capital is \pounds 41,640,120.00 divided into 60,348,000 shares with a par value of \pounds 0.69 each.

The Equity of the Group on 30.06.2018 was €109,560 thousand and the Company's €95,866 thousand.

Treasury Stock

At the 14th Annual General Meeting on 20.05.2015, shareholders approved a share buyback program to purchase up to 10% of the share capital at a price range of ≤ 1.50 to ≤ 7.00 over two years (May 2015 – May 2017) with the intention of cancelling at least 95% of shares thus purchased (the remaining 5% may be distributed to personnel).

Share buybacks began on 09.02.2016 and up until the end of the program on 20.04.2017 5,020,563 shares (7.68% of the share capital) had been purchased, at an average price of ξ 4.63 at a total cost of ξ 23,244,794. Out of the abovementioned number of shares, 95% corresponding to 4,769,563 shares were cancelled by the decision of the 1st Repetitive General Meeting of shareholders on 09.06.2017.

Next, by decision of the 1st Repetitive General Meeting of 13.06.2018 the 251,000 shares in treasury stock that remained were cancelled, and as a result on 30.06.2018 the Company does not possess any treasury stock.

Dividend policy

The Annual General Meeting of Hellenic Exchanges-Athens Stock Exchange shareholders on 30.05.2018 decided to distribute dividend amounting to €3,029,950 or €0.05 per share to shareholders.



The ex-date of the right to the dividend was on 05.06.2018, and the dividend was paid on 12.06.2018. The dividend per share was increased to €0.050208 due to the existence of treasury stock.

The Repetitive General Meeting of 13.6.2018 approved the proposal of the BoD to return capital amounting to \notin 9,089,850 or \notin 0.15 per share. The ex-date of the right to the capital return are expected to take place in August 2018. The capital return per share was increased to \notin 0.1506239 due to the existence of treasury stock.

Related party transactions

Related party transactions in the 1st half of 2018 amount to \notin 675 thousand and concern the remuneration of executives and members of the Boards of Directors of the companies of the Group; for the Company the amount is \notin 477 thousand (for more information see note 5.40). Besides these transactions, there are no other related party transactions, as defined by IAS 24, which could materially affect the financial position or the performance of the Group during the period in question. There is no (credit or debit) balance from these transactions on 30.06.2018.

Branch Office

The Group through its subsidiary "HELLENIC CENTRAL SECURITIES DEPOSITORY" – ATHEXCSD has a branch office in Thessaloniki, at 16-18 Katouni St.

Prospects for the remainder of 2018

The expected improvement of the investment climate will provide opportunities for capital raisings through the exchange. For 2018 new company listings and rights issues are planned, which will create positive feedback for investor interest. Within this framework, conditions will be particularly conducive for privatizations through the Exchange. In turn, such a development would further improve the positive climate for the capital market.

Even though the Greek capital market managed during the crisis to keep the interest of the international investment community, it is estimated that the restructuring of the business landscape through potential mergers and acquisitions, the improvement in the management of Non-Performing Loans (NPLs), privatizations, Greece's credit upgrade and the issuance of government bonds are expected to further stimulate investor interest, provided that the focus remains on policies that improve the economic climate.

The prospects of the Group and the Company are also shaped by the regulatory changes that are taking place in Europe, and by the focus of the European Commission on the potential to finance Small and Medium Enterprises through the capital markets as a consequence of the continuing deleveraging of the banking system and overall developments in the macroeconomic environment internationally.

In these conditions, the Company tries to contain its operating costs, maintain the smooth functioning of its markets, provide value added services, and utilize its infrastructure by adding new products and services in order to effectively fulfill its role of transferring investment resources to the productive backbone of Greece.

The excellent organization of the Group, the reliable operation of the capital market, the continuous investment in modern equipment and processes, the absence of loan liabilities, the recognition of its reliability by internationally recognized rating agencies, as well as the liquidity that it possesses, guarantee its survival in the long term, with significant benefits for shareholders.

Turnover – risks and uncertainties

The revenue of the Athens Exchange Group depends, to a large extent, on factors over which it has no influence, since they are connected with developments in the Greek capital market, which in turn are affected by a series of factors such as, the financial results of listed companies, the fundamental macroeconomic data of the Greek economy as well as developments in international capital markets.

Besides the fees from trading that takes place in the ATHEX markets and which are collected through the Members, important revenue streams for the Athens Exchange Group are also fees from orders and Member terminals, revenue from Member and Operator subscriptions, revenue from subscriptions and rights issues of listed companies, revenue from data vendors, revenue from IT support and services, educational services etc.



Contrary to revenues, which cannot be controlled by the companies of the Group, on the cost side concerted efforts are being made to reduce them, in order to improve the financial results of the Group even under adverse market conditions.

The economic crisis in the Greek economy in recent years has increased the risks for foreign and local investors resulting in a significant reduction in both trading activity on the exchange, as well as in corporate actions by listed companies.

Risk Management

General – Risk management environment

A major consideration of the Athens Exchange Group is the management of risk that arises from its business activities.

The Group, as organizer of the capital market, has developed a comprehensive framework for managing the risks to which it is exposed, ensuring its sustainability and development, as well as contributing to the stability and security of the capital market.

Athens Exchange Clearing House (ATHEXClear) belongs to the Group; it operates as a central counterparty (CCP) in the clearing of cash and derivatives products, and as such is obliged to satisfy the strict requirements of the EMIR regulatory framework concerning risk management, under which it has been licensed since 2015. Even though risk management at the Group concerns all companies and risk categories, it is recognized that because of its role in the market, ATHEXClear faces and must manage the most significant risk.

The internal and external legal and regulatory framework which ATHEXClear is directly subject to and the Group indirectly with regards to their obligations to monitor and manage risk, includes the Regulation of Clearing of Transferable Securities Transactions in Book Entry Form, the Regulation on the Clearing of Transactions on Derivatives and Regulation (EU) 648/2012 of the European Parliament and Council of July 4th 2012 for OTC derivatives, central counterparties, and trade repositories, known as EMIR (European Market Infrastructure Regulation).

Risk Strategy and Risk Management

The risk strategy of the Group is aligned with its business strategy to provide the appropriate infrastructure for the reliable, safe and unhindered operation of the capital market. In accordance with the strategy of the Group, the risk tolerance level is defined in order to satisfy market needs, limit costs for participants, maximize the exploitation of business opportunities but also ensure market security and compliance with regulatory requirements.

Organizational structure

Besides the comprehensive measures for ensuring the smooth operation of the systems of the Group, each organizational unit of the Group is responsible for monitoring and managing possible risks in such a way so as to react quickly and effectively in case risk events arise.

Continuing the effort of previous years, in 2018 efforts are made to strength the operation of risk management by ATHEXClear, in order to remain aligned with the EMIR Regulation and to follow international good practices.

In particular, as far as ATHEXClear is concerned, the organizational structure that supports risk management includes the following units:

 <u>Board of Directors</u>, which has the final responsibility and accountability regarding the management of the risk management operation of the company. In particular, the Board of Directors defines, determines and documents the appropriate level of risk tolerance and ability of the company to assume risk. In addition, the BoD and senior management ensure that the policies, processes and audits of the company are consistent with the risk tolerance level and the ability of the company to assume risk, and examine ways through which the company recognizes, reports, monitors and manages risks.



- <u>Risk Committee</u>, which advises the Board of Directors on matters of risk management.
- <u>Investments Committee</u>, which decides on the determination of limits and monitors liquidity risk, determines policies and standards for the investment strategy, financing principles, liquidity management, interest rate risk and management.
- <u>Risk Management Department</u>, of the Risk Management & Clearing Division of ATHEXClear, which is sufficiently independent from other departments of the Company, and whose main duty is the comprehensive approach to risks that ATHEXClear faces, in order to recognize them, calculate them and finally manage them. The Risk Management Department possesses the required jurisdiction, the necessary means, know-how and access to all relevant information.
- <u>Chief Risk Officer</u>, heading the Risk Management Department, who reports to the Board of Directors on matters of risk management through the Chairman of the Risk Committee, and implements the risk management framework through the policies and procedures that the Board of Directors enacts.
- <u>Organizational Units</u> which are responsible for recognizing and managing risks within their scope and participate in overall risk management at the Group.

Unified risk management

The services that the Group provides involve various types and levels of risk, and it is recognized that effective risk management consists of the following:

- <u>Recognizing and assessing risks</u>: Analyzing the present and future activities of the Group, recognizing cases in which the Group is exposed to risks. The risks recognized are evaluated as to the potential exposure to loss. This includes in general the estimation of both the possibility that the loss will occur, as well as the potential effects.
- <u>Controlling risks</u>: The arrangements for managing each risk are the key to effective risk management and it is important that they be understood by all personnel. In addition, management is responsible for ensuring the appropriate application of the unified framework for risk management and individual policies / frameworks.
- <u>*Risk containment:*</u> Management identifies the best method for risk containment, taking into consideration costs and benefits. As a general principle, the Group does not assume risks that pose the possibility of catastrophic or significant losses. Likewise, insuring against losses that are relatively predictable and without a material impact is avoided. The alternatives for containing risk depend on the level of tolerance of the Group to various types of risk.
- <u>Monitoring and reporting risks</u>: The Group possesses a comprehensive system for reporting and monitoring risks. In particular, the ATHEXClear Risk Management Department monitors the risk levels of the company on a continuous basis using specialized and approved risk management methods. The main assumptions, the data sources and the processes used in measuring and monitoring risk are documented and tested for reliability on a regular basis through the review and audit and the validation framework.

Risk categories

The Group ensures that it deals with all risks, internal or external, present or future, and especially those that have been recognized as being significant. It is recognized that each service provided by the Group can expose it to any combination of the risks mentioned below.

The usual risks to which, due to the nature of its activities, the Group is exposed to are:

Financial Risk

- Market risk (changes in exchange rates, interest rates, market prices, commodities and volatility)
- Credit risk (mainly counterparty credit risk and from the investment of own assets)
- Liquidity risk (mainly cash flows risk)



Operating Risk

Risk due to a lack or failure of internal procedures and systems, by human factor or external events, including legal risk.

Business Risk

Risk due to new competitors, drop in transaction activity, deterioration of local and international economic conditions etc.

Description of categories and main risk factors

Market risk

The Group is exposed to limited market risks in its activities. ATHEXClear as Central Counterparty in the clearing of cash and derivatives products, places its financial assets only in cash at the Bank of Greece. ATHEX and ATHEXCSD invest their cash balances exclusively in time deposits with Greek systemic banks as well as with foreign banks with an excellent rating. In any case, the Group monitors the potential exposure that may lead to market risk and calculates possible assets that it may need to hold against market risk in accordance with the methodology for calculating capital requirements that it applies.

Foreign exchange risk: This risk does not materially affect the operation of the Group, given that transactions with clients & suppliers in foreign currency are limited.

Credit risk

The Group's credit risk mainly concerns transactions in the cash and derivatives markets, in which ATHEXClear operates as Central Counterparty.

The Hellenic Capital Market Commission, with decisions 5, 6 and 7/556/8.7.2010 granted to ATHEXClear a license to manage and operate systems to clear trades on dematerialized securities (Securities System) and derivatives products (Derivatives System). In this capacity, ATHEXClear assumes the risk that Clearing Members default on their obligations to clear and settle trades, as described in the Rulebooks (credit counterparty risk). In addition, as of 22 January 2015 has been licensed as a Central Counterparty under the EMIR regulation, and has a very strict framework for managing risk.

ATHEXClear has enacted and is implementing a number of mechanisms and financial assets to cover risk, and is responsible for the smooth operation of the system in general, in conjunction with the scope and scale of trades whose clearing it has undertaken. The mechanisms that ATHEXClear applies are described in the "Regulation of Clearing of Transferable Securities Transactions in Book Entry Form," in the "Regulation on the Clearing of Transactions," as well as the relevant decisions of the ATHEXClear BoD.

In order to obtain the status of Clearing Member, the Intermediary or Bank must conform to the minimum specific financial and operational adequacy requirements, as specified in the Clearing Rulebooks; these requirements must be continuously fulfilled during the time the Member is in operation.

Both for the cash market, as well as for the derivatives market, ATHEXClear clears trades assuming the role of Central Counterparty. In order to cover the risk against its clearing members, ATHEXClear monitors and calculates on a daily basis (end-of-day but also during the day in almost real time) the margin for each clearing account of the Clearing Members, and blocks the corresponding additional guarantees in the form of cash and/ or transferable securities.

In addition, it manages the Clearing Funds of the two markets which act as risk sharing funds to which Clearing Members contribute exclusively in cash. Based on the margins that have been blocked, the credit limits allocated to members are continuously reviewed, fulfillment of which is monitored in real time during the trading session. The minimum size of the Clearing Funds is recalculated at least on a monthly basis, in accordance with the provisions of the Rulebook, in order for its size to be adequate to cover at any time the obligations imposed by EMIR, that is the absorption of losses beyond the margins in case of a default of a group of clearing members under extreme market conditions.



The risk management models and the parameters used are examined as to their effectiveness on a daily basis and under extreme but possible scenarios (Margin/Haircut Back-Testing, Default Fund Coverage under Stress).

Besides the counterparty credit risk that ATHEXClear faces, the Group faces credit risk from the investment of its own assets. As part of its Investment Policy, specific principles are defined for investing cash assets. Specifically for ATHEXClear, asset placements are as a rule made at the Bank of Greece, a fact that minimizes its risk exposure.

At the remaining companies of the Group, short term asset placements not exceeding three months take place at Greek Systemic Banks, in accordance with the Investments Policy set by the Strategic Investments Committee of the ATHEX Group.

The ratings of the Greek Systemic Banks by an International Rating Agency are shown below:

				STANDARD & POOR' S			
			Outlook	Long Term Local Issuer Credit	Short Term Local Issuer Credit	Long Term Foreign Issuer Credit	Short Term Foreign Issuer Credit
ALPHA BANK AE	ALPHA GA Equity	GR	STABLE	B-	В	B-	В
EUROBANK ERGASIAS SA	EUROB GA Equity	GR	STABLE	B-	В	В-	В
NATIONAL BANK OF GREECE	ETE GA Equity	GR	STABLE	B-	В	В-	В
PIRAEUS BANK S.A	TPEIR GA Equity	GR	STABLE	B-	В	B-	В
BANK OF GREECE	TELL GA Equity	GR	#N/A	NR	NR	NR	NR
HSBC BANK PLC	MID LN Equity	GB	STABLE	AA-	A-1+	AA-	A-1+

BANK RATING VALUES

Out of total cash and cash equivalents of the Group amounting to €85m, approximately €55m is placed with Greek systemic banks, and the remaining approximately €30m at the Bank of Greece.

Liquidity Risk

Liquidity risk as a whole for the Group is maintained at low levels by maintaining adequate cash.

The main liquidity risk for the Group mainly concerns transactions in the cash market and the derivatives market in which ATHEXClear operates as Central Counterparty.

In particular for ATHEXClear, the aim is to maintain an adequate liquidity level in order to ensure that it is in a position to fulfill its obligations concerning payments or settlement in all currencies that are payable, at the end of each day and / or, if required, on an intraday basis. The estimation of the size of the obligations of ATHEXClear is done both based on its business plan, as well as based on possible, but unforeseen, events.

ATHEXClear's liquidity is monitored based on the criteria imposed by EMIR. On a daily basis, and under extreme but possible market scenaria, it is examined whether cash required will be sufficient, following the default by two (2) groups of clearing members to which ATHEXClear has the greatest demand for liquidity to close-out their positions separately for each market (equities, derivatives). In addition, the overall liquidity needs of ATHEXClear are monitored on a daily basis using liquidity gap analysis.



Operating risk

The Group does not seek to assume operating risk, but accepts that operating risk may arise as a result from system, internal procedure or human failure. In particular, it is recognized that operating risk may arise among others because of: outsourcing, surveillance and regulatory non-compliance, business continuity failure, risks from IT systems, information security and project implementation.

Operating risk is maintained at acceptable levels, through a combination of good corporate governance and risk management, strong systems and audits and tolerance structures.

In 2018 there were no cases of interruptions in clearing, settlement and registration at the Group due to failure or unavailability of the IT systems or to human error. There was a very brief (lasting less than 15 minutes) unavailability of the trading system one day due to a technical problem which was subsequently identified and fixed. There were no major damages or monetary demands due to litigation (legal and court expenses) or due to non-compliance with the supervisory framework and the contractual obligations of the Group. In addition no losses due to external events were faced.

Measures to reduce operating risk

The Group recognizes the need to determine, estimate, monitor and reduce operating risk that is included in its operations and activities, as well as the need to maintain adequate capital, in order to manage this particular type of risk.

In particular for ATHEXClear, in accordance with the EMIR Regulation, the capital requirement for operating risk is calculated on an annual basis, using the Basic Indicator Approach (BIA); in addition, a framework for the systematic monitoring of operating risk has been implemented.

The most important measures for reducing operating risk are the implementation of a business continuity plan for all the critical services of the Group, the taking out of insurance policies, as well as measures for ensuring compliance to new regulations. In particular, ATHEXClear follows a specific methodology for managing operating risk, in accordance with which it carries out on a regular basis an RCSA¹ in order to evaluate and categorize risk, update the loss data base², create regular reports and plan actions to improve risk management.

Business continuity plan

The Group has processed and put into operation an appropriate infrastructure and a disaster recovery plan, which includes:

- *Operation of a Disaster Recovery Site:* The Group maintains a disaster recovery site for its IT systems. In addition, the Group has received the ISO-22301 business continuity certification.
- Formation of crisis management teams and emergency incident management: The purpose of these teams is to maintain continuity in the provision of trading services in case of an unforeseen event. They have been assigned specific responsibilities and specially trained Group executives have been assigned to them.
- Existence of back up IT systems: The IT systems of the Group are installed and operate in the data center at the headquarters of the Group. The data center consists of two, independent as to location, supporting infrastructure and technological services provided, individually mirrored data centers, in order to provide redundancy and high availability, ensuring continuous systems operation.

Insurance contracts

Operating risks which the Group is not able or does not wish to assume are transferred to insurance companies. Management of insurance contracts takes place centrally for the whole Group in order to obtain

¹ Risk Control Self-Assessment (RCSA): at regular intervals ATHEXClear organizes workshops for categorizing risk based on the degree of risk exposure at the procedures level and determining Key Risk Indicators (KRIs).

² Loss Database: the database is updated on a daily basis with operations risk events independent of the size of the damage.



better services and more advantageous terms. In particular, coverage concerns among others third party civil liability and professional liability (DFL/PI) as well as civil liability of BoD members and executives (D&O). There are also insurance contracts covering fire and other risk for the buildings and the work and accounting equipment of the Group.

Regulatory compliance

A Regulatory Compliance unit has been set up, having as its key objectives to ensure compliance with the legal and regulatory framework, regulations and policies, measuring and minimizing the risk of regulatory compliance and addressing the consequences of non-compliance with the legal and regulatory framework; the unit operates independently of other departments of the company with clear and separate reporting lines from those of other company activities, in accordance with the requirements of the EMIR regulation.

The main responsibilities of the unit are to:

- Monitor changes in the regulatory and surveillance framework and inform the BoD, the Audit Committee and staff.
- Conduct gap analysis between the existing and future condition brought about by regulatory and surveillance changes.
- Monitor the compliance of the company with the legal and regulatory framework.
- Handle requests related to compliance matters.
- Measure and monitor compliance risk.

In particular for ATHEXClear, policies were implemented concerning conflict of interest, outsourcing, managing complaints by clearing members, remuneration of staff, executives and members of the BoD and management of its archives, in accordance with the requirements of the EMIR Regulation.

Business risk

The Group recognizes that it depends on macroeconomic developments and is affected by external factors such as changes in the competitive capital markets environment, changes in the international and domestic economic environment, legal and regulatory developments, changes in taxation policy and in technology etc. Such events may impact the growth and sustainability of the Group, causing a reduction in trading activity, a drop in expected profits, inability to liquidate and / or asset impairment etc.

Within this framework, the Group continually and systematically monitors international developments and adjusts to the environment that is taking shape. In particular, in accordance with the EMIR Regulation, the capital requirements for business risk for ATHEXClear are calculated on an annual basis.

The Group is in the process of reviewing the framework for evaluation, categorizing and managing business risk by exploiting existing models and the relevant experience at ATHEXClear and ATHEXCSD.

Internal Audit and Risk Management

A primary concern for the Company is the development and continuous improvement and upgrade of the Internal Audit System, which covers all of the recorded audit mechanisms and processes that cover the whole spectrum of daily operations and processes of the Company.

In particular, as regards the financial operation of the Company, a system of safeguards is in place that prevents or detects significant errors in time in order to ensure the reliability of the financial statements, the effectiveness and efficiency of operations and compliance with the rules and regulations. Based on specific significance criteria (quantitative and qualitative), important accounts are identified, procedures are recorded, responsibilities and policies are assigned and checkpoints are designed and are applied on a continuous basis by management and staff.

The Board of Directors has the ultimate responsibility to determine the Internal Audit System of the Company, as well as monitor and evaluate its effectiveness and adequacy.



Responsible for auditing the observance of the Internal Audit System: a) the Audit Committee and b) the Internal Audit Division.

The <u>Audit Committee</u> of the Company has been set up by decision of the Board of Directors of the Company and operates based on the Standards for the Professional Application of Internal Audit of the Institute of Internal Auditors, decision 5/204/14.11.2000 of the Hellenic Capital Market Commission, Law 3016/2002 on corporate governance, and Law 3693/2008 on the harmonization of Greek legislation with Directive 2006/43/EC.

The main purpose of the Audit Committee is to assist the Board of Directors in the supervision of the quality, adequacy and effectiveness of the internal audit and risk management system, as well as the quality of the work effectiveness of the Company.

The Internal Audit Division operates in the manner prescribed by the Code of Conduct and the International Professional Practices Framework (IPPF) of the Institute of Internal Auditors (IIA), decision 5/204/14.11.2000 of the Hellenic Capital Market Commission and Law 3016/2002 on corporate governance. The Internal Audit Division reports to the Board of Directors, through the Audit Committee which supervises it.

The main responsibility of the Internal Audit Division is to express an opinion on the compliance or noncompliance of the internal processes of each audited area, as well as the application of the safeguards that have been adopted by Management, in order to prevent and avoid risk.

Management of the Clearing Fund

Cash market

Athens Exchange Clearing House S.A. (ATHEXClear) manages the Clearing Fund in order to protect the System from credit risk of the Clearing Members that arise from the clearing of transactions.

In the Clearing Fund Clearing Members contribute exclusively in cash. ATHEXClear monitors and calculates, on a daily basis as well as during the day, the risk that Clearing Members will renege on their obligations, and blocks the corresponding guarantees in cash and/or letters of guarantee. Based on the guarantees that have been blocked, the credit limits of the members are reevaluated on a daily basis; monitoring the limits takes place in real time during market hours. The minimum size of the Clearing Fund is recalculated at least every month, in accordance with the provisions of the Rulebook, so that its size is sufficient at a minimum to cover at any time the loss, under any extreme market conditions that may arise in case the Clearing Member in which the system has the greatest exposure is overdue.

The participation of each Clearing Member in the Clearing Fund is determined based on its Account in it. The Account consists of all of the contributions by the Clearing member that have been paid into the Fund in order to form it, and is increased by any proceeds resulting from the management and investment of the assets of the Fund, as well as by the cost of managing risk and margins, as determined by ATHEXClear procedures. Revenues and expenses are distributed on a pro rata basis to each Clearing Member account in the Clearing Fund, in relation to the size of the Account balance.

The new size of the Clearing Fund is €10,577,057.00 for the period from 01.07.2018 to 31.07.2018.

Derivatives market

The BoD of ATHEXClear at meeting number 109/17.11.2014 approved the creation of a set of risk management policies and methodologies as a result of the clearing model changes in the derivatives market, the Regulation on the Clearing of Transactions on Derivatives, as well as due to the adjustments to the requirements of the EMIR Regulation.

In accordance with the new Regulation on the Clearing of Transactions on Derivatives and in particular Part 6 of Section II, a Clearing Fund for the Derivatives Market is set up; the size of the Fund for the time period from 01.07.2018 to 31.07.2018 is €9,591,019.00. Calculation takes place on a monthly basis.

Management of the Clearing Fund in the Derivatives Market does not differ from the Clearing Fund in the cash market (see above).



Hellenic Energy Exchange (HEnEx)

The "Hellenic Energy Exchange" (HenEx) began operating. It is one of the core pillars of the target-model of the European Union, with the aim of creating a single European energy market.

As mentioned in the information note of the Ministry of the Environment, the Energy Exchange is a prerequisite to the restructuring of the wholesale electricity market, to the benefit of market participants and end-consumers, as it aims to:

- Couple the Greek market to other European markets.
- Increase competition and transparency, which will have a direct effect in reducing energy costs and providing better prices to households and businesses.
- Ensure the safety of energy supply, diversification of energy sources in the energy mix, as well as further increase the participation of renewable energy sources (RES). Law 4512/2018 amends law 4425/2016 on the restructuring of the Greek electricity market, implementing European Regulations and Directives in order to complete the single European energy market, the so-called Target Model.

In April 2019 the Energy Exchange will begin operating with the start of the four hew energy markets which will replace the mandatory pool model that is in effect today. This is foreseen in the "road map" for implementing the Target Model that has been set up by the responsible bodies, which received the "green light" by the representatives of the Institutions at the recent negotiations.

On 18.06.2018 decision 9828/18-18.06.2018 by the Deputy Chief of the Athens Central Region (A Δ A 62A27 Λ 7-T Σ B) was registered at the General Electronic Commercial Registry (GEMI) (registration number 1405724), which:

- Provides a license to establish the Societe Anonyme with the name "Hellenic Energy Exchange" ("HenEx"), to which the spun-off sector by "Operator of Electricity Market" ("LAGIE"), GEMI Registration number 44658007000 was contributed, in accordance with the provisions of codified law 2190/1920, law 2166/93 (in deviation of case e' of par. 1 of article 1), article 117B of law 4001/2011 as added by article 96 of law 4512/2018 and the Report Ascertaining the Book Value of the assets of the sector being spun-off, drafted by the Certified Auditor-Accountant NIKOLAOS TSARDOULIAS.
- Approves the Articles of Association of the company, as drafted by notary act number 4874/15.06.2018 by the notary of Athens Eleni Aristeidis Dragiou.

The Tax Registration Number of the Hellenic Energy Exchange is 801001623 and its offices are on 110 Athinon Ave, 10442 Athens, which are leased from ATHEXCSD. HenEx is expected to move into its permanent offices after the end of July 2018.

The share capital of HenEx, in the amount of €5,000,000 divided into 50,000 shares of €100 each was paid in full on 9.7.2018.

The Company (Athens Exchange – ATHEX) paid up its participation in the amount of €1,550,000 on 27.6.2018.

The shareholders with their stakes in the share capital of HenEx are shown below:

	Value (€)	Shares	Stake
LAGIE [Operator of Electricity Market]	1,100,000	11,000	22%
ADMIE [Independent Power Transmission Operator – IPTO]	1,000,000	10,000	20%
DESFA [Hellenic Gas Transmission System Operator]	350,000	3,500	7%
Athens Exchange	1,550,000	15,500	31%
European Bank for Reconstruction and Development (EBRD)	1,000,000	10,000	20%
Cyprus Stock Exchange *			
Total	5,000,000	50,000	100%



* Within the next few months, ATHEX is expected to transfer 10% of the share capital (out of the 31% it holds today), i.e. 5,000 shares with a par value of €500,000 to the Cyprus Stock Exchange.

Hellenic Corporate Governance Council (HCGC)

HCGC continued its activities along the axes of promoting the principles of corporate governance for listed and non-listed companies, by providing, among others, consulting services as part of the project to support the reform of the Greek public administration. In particular, it had undertaken in 2017 a project to provide consulting services in matters of corporate governance to the Hellenic Corporation of Assets and Participations S.A. (HCAP) and its subsidiaries, which included the drafting texts and informing / training HCAP executives. Following on this project, HCGC undertook the drafting of "Dividend Policy" for HCAP and its subsidiaries. The project continued and was completed in the 1st quarter of 2018.

Composition of the BoDs of the companies of the Group

The current members of the Boards of Directors of the companies of the ATHEX Group are listed in the following tables:

HELLENIC EXCHANGES - ATHENS STOCK EXHANGE S.A. HOLDING			
Name	Position		
George Handjinicolaou	Chairman, non-executive member		
Socrates Lazaridis	Vice Chairman & Chief Executive Officer		
Alexandros Antonopoulos	Independent non-executive member		
Konstantinos Vassiliou	Non-executive member		
Ioannis Emiris	Non-executive member		
Dimitrios Karaiskakis	Executive member		
Sofia Kounenaki – Efraimoglou	Independent non-executive member		
Ioannis Kyriakopoulos	Non-executive member		
Adamantini Lazari	Independent non-executive member		
Nikolaos Milonas	Independent non-executive member		
Alexios Pilavios	Non-executive member		
Dionysios Christopoulos	Independent non-executive member		
Nikolaos Chryssochoidis	Non-executive member		

(*) At the meeting of the Board of Directors on 27.12.2017 Mr. George Handjinicolaou replaced Mr. lakovos Georganas as non-executive member. At the same meeting, the Board of Director elected Mr. George Handjinicolaou as new non-executive Chairman of the Board of Directors.

ATHENS EXCHANGE CLEARING HOUSE S.A				
Name	Position			
Alexios Pilavios	Chairman, non-executive member			
Gikas Manalis	Vice Chairman, non-executive member			
Socrates Lazaridis	Chief Executive Officer, Executive member			
Andreas Mitafidis	Independent non-executive member			
Nikolaos Pimplis	Executive member			
Charalambos Saxinis	Independent non-executive member			
Dionysios Christopoulos	Independent non-executive member			



HELLENIC CENTRAL SECURITIES DEPOSITORY S.A.				
Name	Position			
George Handjinicolaou	Chairman, non-executive member			
Socrates Lazaridis	Vice Chairman & Chief Executive Officer			
Nikolaos Pimplis	Executive member			
Nikolaos Porfyris	Executive member			
Dionysios Christopoulos	Non-executive member			

Alternative Performance Measures

The European Securities and Markets Authority (ESMA/2015/1415el) published the final guidelines on the Alternative Performance Measures (APMs) that apply starting on 3 July 2016 to companies with transferable securities traded in organized exchanges. APMs are published by the issuers during the publication of regulated information, and aim to improve transparency and promote usability as well as provide accurate and comprehensive information to investors.

An Alternative Performance Measure is an adjusted financial measurement of past or future financial performance, financial position or cash flows that is different from the financial measurement defined in the applicable financial reporting framework. In other words an APM on the one hand is not exclusively based on financial statement standards, and on the other it provides material supplementary information, excluding items that may potentially differentiate from the operating results or the cash flows.

Transactions with a non-operational or non-cash valuation that have a significant effect in the Statement of Comprehensive Income are considered items that affect the adjustment of the indices to APMs. These, non-recurring in most cases, items may arise among others from:

- Asset impairments
- Restructuring measures
- Reorganization measures
- Sale or transfer of assets
- Changes in legislation, compensation for damages or legal claims

APMs must always be taken into consideration in conjunction with the financial results that have been prepared based on IFRS, and in no instance should they be considered as replacing them. The Athens Exchange Group used APMs for the first time in fiscal year 2016, in order to better reflect the financial and operational performance related to the activity of the Group as such in the fiscal year in question, as well as the previous comparable period.

The definition, analysis and calculation basis of the APMs used by the Group is presented below.

Items affecting the adjustment

In accordance with the financial statements for the 1st half of 2018, essentially the only items affecting the adjustment of the measures used by the Group in order to calculate APMs are the provisions against bad debts and the valuation of the shares of a listed bank that it possesses.

The itemized data that affect the adjustment of APMs on 30.06.2018 and 30.06.2017 are shown in the table below:



SIX MONTH 2018 FINANCIAL REPORT

in € thousand	01.01-	01.01-
	30.06.2018	30.06.2017
Statement of Comprehensive Income		
Provisions against bad debts	0	(400)
Total	0	(400)
Other Comprehensive Income		
Share valuation	(71)	57
Grand total	(71)	(343)

The indices which are not differentiated due to the lack of adjustment items are:

1. EBITDA		_	Earnings Before Interest, Taxes,		items affecting the
1.	EDITUA	-	Depreciation & Amortization	-	adjustment

€ thousand	01.01- 30.06.2018	01.01- 30.06.2017	Deviation %
EBITDA	5,334	3,762	42%
Provisions against bad debts	0	400	(100)%
Adjusted EBITDA	5,334	4,162	28%
Deviation %	0%	11%	

2. EBIT = Earnings Before Interest & Taxes - items affecting the adjustment

€ thousand	01.01- 30.06.2018	01.01- 30.06.2017	Deviation %
EBIT	3,698	2,274	63%
Provisions against bad debts	0	400	(100)%
Adjusted EBIT	3,698	2,674	38%
Deviation %	0%	18%	

3. EBT = Earnings Before Taxes - items affecting the adjustment

€ thousand	01.01- 30.06.2018	01.01- 30.06.2017	Deviation %
EBT	3,965	2,347	69%
Provisions against bad debts	0	400	(100)%
Adjusted EBT	3,965	2,747	44%
Deviation %	0%	17%	

4. EAT = Earnings After Taxes - items affecting the adjustment



SIX MONTH 2018 FINANCIAL REPORT

€ thousand	01.01- 30.06.2018	01.01- 30.06.2017	Deviation %
EAT	2,758	1,526	81%
Adjusted EAT	2,758	1,926	43%
Deviation %	0%	26%	

5. Cash flows after investments

investments	Net cash flows	Net cash flows	items affecting
(cash flows before financial activities in the Statement of Cash Flows)	 from operating activities 	 from investment activities 	the adjustment

€ thousand	01.01-	01.01-	Deviation %
	30.06.2018	30.06.2017	
Net cash flows from operating activities	14,214	20,923	(32)%
Net cash flows from investment activities	(2,995)	(713)	320%
Cash flows after investment activities	11,219	20,210	(44)%
Items affecting the adjustment	0	0	
Adjusted cash flows from investment activities	11,219	20,210	(44)%
Deviation	0%	0%	

6.	Return on Investment	Profits Before Taxes + Interest & related expenses – items affecting the adjustment	
	(ROI) %	Total liabilities (reduced by third party cash & cash equivalents) + average interest bearing liabilities during	x 100

the year

€ thousand	01.01- 30.06.2018	01.01- 30.06.2017	Deviation %
Return on Investment (ROI)	16%	8%	100%
Earnings After Tax	3,965	2,347	69%
Interest & related expenses	(267)	(73)	266%
Items affecting the adjustment	0	0	
Total (a)	3,698	2,274	63%
Total liabilities – Third party cash & cash equivalents (b)	22,575	29,022	(22)%
Adjusted Return on Investment (ROI) (a)/(b)	16%	8%	109%
Deviation %	2%	(2)%	

7. Adjusted Return on Equity (ROE), % Profits After Taxes – items affecting the adjustment

_____ x 100

Total Equity (average)



SIX MONTH 2018 FINANCIAL REPORT

€ thousand	01.01- 30.06.2018	01.01- 30.06.2017	Deviation %
Return on Equity	2.40%	1%	101%
Net earnings for the period	2,758	1,526	81%
Items affecting the adjustment	0	400	(100)%
Total	2,758	1,926	43%
Average total Equity	114,747	127,586	(10)%
Adjusted Return on Equity	2.40%	1.51%	59%
Deviation %	0%	26%	

8. Degree of Financial Self-Sufficiency Total Equity – items affecting the adjustment

- x 100

Total Balance sheet – third party cash assets

€ thousand 01.01-01.01-**Deviation %** 30.06.2018 30.06.2017 **Degree of Financial Self-Sufficiency** 83% 80% 4% **Total Equity** 109,560 118,054 (7)% Items affecting the adjustment 0 400 (100)% Share valuation 71 (57) (225)% Total (a) 109,631 118,397 (7)% 147,076 (10)% Total Balance Sheet - Third party cash & cash equivalents 132,135 83% 81% 2% Adjusted Degree of Financial Self-Sufficiency (a/b) 0% 1% **Deviation %**

The only APM out of those used by the Group that is affected in the 1st half of 2018 is:

=

		Net Profit attributable to the owners of the parent Company –	
0	Adiusted EPS	_ items affecting the adjustment	- x 100
9.	Aujusteu EPS	-	- X 100

Average number of shares during the period

€ thousand	01.01- 30.06.2018	01.01- 30.06.2017	Deviation %
EPS	0.045	0.026	73%
Other comprehensive income	2,687	1,583	70%
Provisions against bad debts	0	400	(100)%
Share valuation	71	(57)	(225)%
Share valuation	0	0	
Net adjusted other comprehensive income	2,758	1,926	43%
Average number of shares during the period	60,348,000	60,659,599	(1)%
Adjusted EPS deviation	0.046	0.032	186%
Deviation %	25%	600%	

In the 1st half of 2018 adjusted EPS was 25% higher compared to EPS, while compared to the 1st half of 2017 adjusted EPS is improved by 186%.



Significant events after 30.06.2018

There is no event that has a significant effect in the results of the Group and the Company which has taken place or was completed after 30.06.2018, the date of the six month 2018 financial statements and up until the approval of the six month financial statements by the Board of Directors of the Company on 30.07.2018.

Athens, 30 July 2018 The Board of Directors



3. REVIEW REPORT BY THE INDEPENDENT CERTIFIED AUDITORS ACCOUNTANTS



[Translation from the original text in Greek]

Report on Review of Interim Financial Statements

To the Board of directors of "HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A"

Introduction

We have reviewed the accompanying interim company and consolidated statement of financial position of "HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A" (the "Company"), as of 30 June 2018 and the related company and consolidated statements of profit or loss and other comprehensive income , changes in equity and cash flow statements for the six-month period then ended, and the selected explanatory notes that comprise the interim financial statements and which form an integral part of the six-month financial report as required by L.3556/2007. Management is responsible for the preparation and presentation of these financial statements in accordance with International Financial Reporting Standards as they have been adopted by the European Union. Our responsibility is to express a conclusion on these financial statements based on our review.

Scope of Review

We conducted our review in accordance with International Standard on Review Engagements 2410, "Review of Interim Financial Information Performed by the Independent Auditor of the Entity". A review of interim financial statements consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing, as they have been transposed into Greek Law and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

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Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the accompanying interim financial statements are not prepared, in all material respects, in accordance with International Financial Reporting Standards, as adopted by the European Union.

PricewaterhouseCoopers S.A. 268 Kifissias Avenue, 152 32 Athens Reg. No. 113

Despina Marinou Reg N. 17681 Fotis Smyrnis Reg N. 52861

26 July, 2018

PricewaterhouseCoopers SA, 268 Kifissias Avenue, 15232 Halandri, Greece

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4. INTERIM 1st HALF 2018 FINANCIAL STATEMENTS

for the period 1 January 2018 to 30 June 2018

In accordance with the International Financial Reporting Standards



4.1. Interim Six Month Statement of Comprehensive Income

			Gro	oup		Company				
		01.01	01.01	01.04	01.04	01.01	01.01	01.04	01.04	
	Notes	30.06.2018	30.06.2017	30.06.2018	30.06.2017	30.06.2018	30.06.2017	30.06.2018	30.06.2017	
Revenue										
Trading	5.7	2,470	2,161	1,145	1,357	2,470	2,167	1,145	1,357	
Clearing	5.8	4,636	4,007	2,135	2,501	0	0	0	0	
Settlement	5.9	812	495	399	299	0	0	0	0	
Exchange services	5.10	1,596	1,617	772	908	1,596	1,617	775	908	
Depository services	5.11	1,386	1,285	739	728	0	0	0	0	
Clearinghouse services	5.12	64	125	31	42	0	0	0	0	
Market Data	5.13	1,536	1,461	1,090	656	1,663	1,604	1,151	723	
IT services	5.14	227	157	106	77	206	134	96	66	
Revenue from re-invoiced		650	650			500	600			
expenses	5.15	659	650	444	447	598	603	417	423	
Ancillary services (XNET, colocation, LEI)	5.16	1,096	875	578	399	395	355	221	161	
Other services	5.17	220	209	144	110	304	290	185	157	
Total turnover		14,702	13,042	7,583	7,524	7,232	6,770	3,990	3,795	
Hellenic Capital Market Commission fee	5.18	(594)	(511)	(275)	(325)	(216)	(197)	(100)	(126)	
Total Operating revenue		14,108	12,531	7,308	7,199	7,016	6,573	3,890	3,669	
Expenses		14,100	12,551	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,255	7,010	0,070	0,000	5,005	
Personnel remuneration and expenses	5.19	4,885	4,630	2,398	2,354	2,553	2,623	1,250	1,364	
Third party remuneration and expenses	5.20	298	320	176	214	200	163	95	94	
Utilities	5.21	321	334	170	199	36	44	19	34	
Maintenance / IT support	5.22	582	583	316	249	426	408	241	174	
Other Taxes	5.23	443	424	160	182	282	250	134	145	
Building / equipment										
management	5.24	214	275	98	134	51	53	25	27	
Other operating expenses	5.25	825	843	333	789	837	817	355	368	
Total operating expenses before ancillary services and depreciation		7,568	7,409	3,651	4,121	4,385	4,358	2,119	2,206	
Re-invoiced expenses	5.26	564	545	383	401	459	463	322	364	
Expenses for ancillary services										
(XNET, LEI, IT)	5.27	642	415	385	231	100	36	78	13	
Provision for bad debts		0	400	0	0	0	0	0	0	
Total operating expenses, including ancillary services before depreciation		8,774	8,769	4,419	4,753	4,944	4,857	2,519	2,583	
Earnings before Interest, Taxes, Depreciation & Amortization (EBITDA)		5,334	3,762	2,889	2,446	2,072	1,716	1,371	1,086	
Depreciation	5.28 & 5.29	(1,636)	(1,488)	(843)	(750)	(807)	(757)	(413)	(382)	
Earnings Before Interest and Taxes (EBIT)		3,698	2,274	2,046	1,696	1,265	959	958	704	
Capital income	5.33	334	156	164	84	200	90	96	51	
Dividend income	5.30	0	0	0	0	803	803	803	803	
Financial expenses	5.33	(67)	(83)	(34)	(53)	(5)	(25)	(2)	(24)	
Earnings Before Tax (EBT)		3,965	2,347	2,176	1,727	2,263	1,827	1,855	1,534	
Income tax	5.39	(1,207)	(821)	(596)	(637)	(445)	(320)	(284)	(231)	
Earnings after tax	0.00	2,758	1,526	1,580	1,090	1,818	1,507	1,571	1,303	

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.



		Group			Company				
		01.01	01.01	01.04	01.04	01.01	01.01	01.04	01.04
	Notes	30.06.2018	30.06.2017	30.06.2018	30.06.2017	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Earnings after tax (A)		2,758	1,526	1,580	1,090	1,818	1,507	1,571	1,303
Valuation profits / (losses) during the period	5.32	(100)	80	234	601	(100)	80	234	601
Income tax included in other comprehensive income / (losses)		29	(23)	(68)	(174)	29	(23)	(68)	(174)
Total other income / (loss) after taxes not transferred to other fiscal years (B)		(71)	57	166	427	(71)	57	166	427
Total comprehensive income (A) + (B)		2,687	1,583	1,746	1,517	1,747	1,564	1,737	1,730

Distributed to:			
Company shareholders		2,687	1,583
Profits after tax per share (basic & diluted; in €)	5.41	0.045	0.026
Weighted average number of shares		60,348,000	60,599,000

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.

4.2. Interim Six Month Statement of Financial Position

	Nete	Gro	oup	Company		
	Note	30.06.2018	31.12.2017	30.06.2018	31.12.2017	
ASSETS						
Non-Current Assets						
Tangible assets for own use	5.28	21,427	21,465	920	784	
Intangible assets	5.28	6,367	6,084	4,038	4,075	
Real Estate Investments	5.29	2,689	2,791	2,689	2,791	
Investments in subsidiaries & other long term receivables	5.30	1,618	68	59,668	58,118	
Financial assets available for sale at fair value through other income	5.32	1,951	2,052	1,951	2,052	
Deferred tax asset	5.35	1,202	1,241	1,146	1,173	
		35,254	33,701	70,412	68,993	
Current Assets						
Trade receivables	5.31	2,971	3,850	1,324	2,274	
Other receivables	5.31	8,960	9,231	6,998	6,654	
Income tax receivable	5.31	0	168	76	464	
Third party balances in Group bank accounts	5.34	163,548	157,598	1,566	1,565	
Cash and cash equivalents	5.33	84,950	85,851	31,777	33,970	
		260,429	256,698	41,741	44,927	
Total Assets		295,683	290,399	112,153	113,920	
EQUITY & LIABILITIES						
Equity & Reserves						
Share capital	5.36	41,640	50,903	41,640	50,903	
Treasury stock	5.36	0	(1,162)	0	(1,162)	
Share premium	5.36	157	157	157	157	
Reserves	5.36	49,298	50,244	45,968	48,603	
Retained earnings		18,465	18,852	8,101	7,736	
Total Equity		109,560	118,994	95,866	106,237	
Non-current liabilities						
Grants and other long term liabilities	0	50	50	50	50	
Staff retirement obligations	5.37	1,933	2,190	1,224	1,375	
Other provisions	5.37	1,360	1,360	1,300	1,300	
Deferred tax liability	5.35	1,512	1,568	0	0	
		4,855	5,168	2,574	2,725	
Current liabilities						
Trade and other payables	5.38	15,973	7,697	11,528	2,647	
Third party balances in Group bank accounts	5.34	163,548	157,598	1,566	1,565	
Current income tax payable	5.39	1,027	0	0	0	
Social Security		720	942	619	746	
		181,268	166,237	13,713	4,958	
Total Liabilities		186,123	171,405	16,287	7,683	
Total Equity & Liabilities		295,683	290,399	112,153	113,920	

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.



4.3. Interim Six Month Statement of Changes in Equity

4.3.1. Group

	Share Capital	Own Shares	Share Premium	Reserves	Retained Earnings	Total Equity
Balance 01.01.2017	70,598	(18,634)	157	70,119	18,452	140,692
Earnings for the period	0	0	0	0	1,526	1,526
Share valuation reserve	0	0	0	57	0	57
Total comprehensive income after taxes	0	0	0	57	1,526	1,583
Earnings distribution to reserves	0	0	0	302	(302)	0
Share buyback	0	(4,609)	0	0	0	(4,609)
Treasury stock reserve	0	22,081	0	(18,076)	0	4,005
Cancellation of treasury stock	(4,006)	0	0	0	0	(4,006)
Share capital return (note 5.36)	(15,689)	0	0	0	(3,922)	(19,611)
Balance 30.06.2017	50,903	(1,162)	157	52,402	15,754	118,054
Earnings for the period	0	0	0	0	1,550	1,550
Actuarial profit/ (loss) from defined benefit pension plans	0	0	0	0	(27)	(27)
Profits/(losses) from valuation of financial assets available for sale	0	0	0	(583)	0	(583)
Total comprehensive income after taxes	0	0	0	(583)	1,523	940
Balance 31.12.2017	50,903	(1,162)	157	51,819	17,277	118,994
Adjustment due to the adoption of IFRS9 (note 5.36)	0	0	0	(1,575)	1,575	0
Balance 01.01.2018	50,903	(1,162)	157	50,244	18,852	118,994
Earnings for the period	0	0	0	0	2,758	2,758
Losses from valuation of financial assets available for sale	0	0	0	(71)	0	(71)
Total comprehensive income after taxes	0	0	0	(71)	2,758	2,687
Earnings distribution to reserves	0	0	0	114	(114)	0
Cancellation of treasury stock	(173)	1,162	0	(989)	0	0
Share capital return (note 5.36)	(9,090)	0	0	0	0	(9,090)
Dividends paid (note 5.41)	0	0	0	0	(3,029)	(3,029)
Balance 30.06.2018	41,640	0	157	49,298	18,467	109,562

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.



4.3.2. Company

	Share Capital	Own Shares	Share Premium	Reserves	Retained Earnings	Total Equity
Balance 01.01.2017	70,598	(18,634)	157	66,958	10,336	129,415
Earnings for the period	0	0	0	0	1,507	1,507
Profits/(losses) from valuation of financial assets available for sale	0	0	0	57	0	57
Total comprehensive income after taxes	0	0	0	0	1,507	1,507
Earnings distribution to reserves	0	0	0	248	(248)	0
Share buy back	0	(4,609)	0	0	0	(4,609)
Treasury stock reserve	0	22,081	0	(18,076)	0	4,005
Cancellation of treasury stock	(4,006)	0	0	0	0	(4,006)
Return of share capital (note 5.36)	(15,689)	0	0	0	0	(15,689)
Dividends paid	0	0	0	0	(3,922)	(3,922)
Balance 30.06.2017	50,903	(1,162)	157	49,187	7,673	106,758
Earnings for the period	0	0	0	0	79	79
Actuarial profit/ (loss) from defined benefit pension plans	0	0	0	0	(16)	(16)
Profits/(losses) from valuation of financial assets available for sale	0	0	0	(584)	0	(584)
Total comprehensive income after taxes	0	0	0	(584)	63	(521)
Balance 31.12.2017	50,903	(1,162)	157	48,603	7,736	106,237
Adjustment due to the adoption of IFRS9 (note 5.36)				(1,575)	1,575	
Balance 01.01.2018	50,903	(1,162)	157	47,028	9,311	106,237
Earnings for the period	0	0	0	0	1,818	1,818
Loss from valuation of financial assets available for sale	0	0	0	(71)	0	(71)
Total comprehensive income after taxes	0	0	0	(71)	1,818	1,747
Cancellation of treasury stock	(173)	1,162	0	(989)	0	0
Share capital return (note 5.36)	(9 <i>,</i> 090)	0	0	0	0	(9,090)
Dividends paid (note 5.41)	0	0	0	0	(3,029)	(3,029)
Balance 30.06.2018	41,640	0	157	45,968	8,100	95,865

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.

The notes in chapter 5 form an integral part of the interim financial statements of 30.06.2018.



4.4. Interim Six Month Cash Flow Statement

		Group		Company		
	Notes	1.1-	1.1-	1.1-	1.1-	
		30.06.2018	30.06.2017	30.06.2018	30.06.2017	
Cash flows from operating activities						
Earnings before tax	5.28	3,965	2,347	2,263	1,827	
Plus / (minus) adjustments for						
Depreciation	5.31 & 5.29	1,636	1,488	807	757	
Staff compensation provisions	5.37	28	31	16	14	
Net provisions	5.37		0			
Interest Income	5.33	(334)	(156)	(200)	(90)	
Dividends received				(803)	(803)	
Interest and related expenses paid	5.33	67	83	5	25	
Plus/ (minus) adjustments for changes in working capital accounts or concerning operating activities						
Reduction/Increase in receivables		1,150	986	608	778	
Reduction/Increase in liabilities (except loans)		7,769	16,227	8,587	16,235	
Reduction/Total adjustments for changes in		14,281	21,006	11,283	18,743	
working capital						
Interest and related expenses paid	5.33	(67)	(83)	(5)	(25)	
Staff compensation payments			0		0	
Net inflows / outflows from operating activities (a)		14,214	20,923	11,278	18,718	
Investing activities						
Purchases of tangible and intangible assets	5.28 & 5.29	(1,779)	(869)	(804)	(339)	
Payment of participation in EnEx		(1,550)		(1,550)	0	
Interest received	5.33	334	156	200	90	
Dividends received			0	803	803	
Total inflows / (outflows) from investing activities (b)		(2,995)	(713)	(1,351)	554	
Financing activities						
Special dividend (share capital return)	5.39	(9,090)	(15,688)	(9,090)	(15,688)	
Share buy back	5.36		(4,611)		(4,611)	
Dividend payments	5.49	(3,030)	(3,922)	(3,030)	(3,922)	
Total outflows from financing activities (c)		(12,120)	(24,221)	(12,120)	(24,221)	
Net increase/ (decrease) in cash and cash		(901)	(4,011)	(2,193)	(4,949)	
equivalents from the beginning of the period (a) + (b) + (c)						
Cash and cash equivalents at start of the period	5.33	85,851	100,017	33,970	53,547	
Cash and cash equivalents at end of the period	5.33	84,950	96,006	31,777	48,598	

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.

The notes in chapter 5 form an integral part of the interim financial statements of 30.06.2018.



5. NOTES TO THE 1st HALF 2018 INTERIM FINANCIAL STATEMENTS



5.1. General information about the Company and its subsidiaries

The Company "HELLENIC EXCHANGES-ATHENS STOCK EXCHANGE S.A. (ATHEX)" with the commercial name "ATHENS STOCK EXCHANGE" was founded in 2000 (Government Gazette 2424/31.3.2000) and has General Electronic Commercial Registry (GEMI) No 3719101000 (former Companies Register No 45688/06/B/00/30). Its head office is in the Municipality of Athens at 110 Athinon Ave, Postal Code 10442. The shares of the Company are listed in the Main Market segment of the Athens Exchange cash market.

The interim financial statements of the Group and the Company for the 1st half of 2018 have (hereinafter "interim financial statements") been approved by the Board of Directors on 30.7.2018. The financial statements have been published on the internet, at <u>www.athexgroup.gr</u>. The six month and the annual financial statements of the subsidiaries of the Group ATHEXCSD and ATHEXClear are published at <u>www.athexgroup.gr</u>, even though they are not listed on the Athens Exchange.

The companies in which the parent company participates with their relevant activities and participation percentages, which are included in the consolidated financial statements (with the full consolidation method), are:

Company	Hellenic Central Securities Depository (AT	HEXCSD)
Head Office	Athens	
% of direct participation	30.06.2018	31.12.2017
ATHEX	100%	100%
ATHEX GROUP	100%	100%
Company	Athens Exchange Clearing House (ATHEXC	Clear)
Company Head Office	Athens Exchange Clearing House (ATHEXC Athens	Clear)
		Clear) 31.12.2017
Head Office	Athens	

5.2. Basis of preparation of the annual financial statements

The company and consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standard Board (IASB) and their Interpretations as issued by the International Financial Reporting Interpretations Committee (IFRIC) of IASB and adopted by the European Union and are mandatory for fiscal years ending on December 31st 2017, besides the new standards and interpretations that were adopted, application of which became mandatory for period after 1 January 2018. There are no standards and interpretations of standards that have been applied before the date they go into effect.

The attached financial statements have been drafted on the basis of historical cost as modified by the revaluation of specific assets to fair values (tangible assets and assets available for sale) and the principle of "going concern".

The excellent organization of the Group, the reliable operation of the capital market, the continuous investment in modern equipment and processes, the absence of loan liabilities, the recognition of its reliability by internationally recognized rating agencies, as well as the liquidity that it possesses, guarantee its survival in the long term, with significant benefits for shareholders. The recent economic crisis gripping the country, and the imposition of capital controls, create significant problems in the operation and profitability of the Group; however it is estimated that, with the exit of the Group from the memoranda as part of the EU and within the Euro system, any obstacles will be overcome and the country will return to growth, supported by the necessary structural changes that are gradually being legislated.



The preparation of financial statements in accordance with the International Financial Reporting Standards requires that the Management of the Group make significant assumptions and accounting estimates that affect the balances of the Asset and Liability accounts, the disclosure of contingent claims and liabilities on the preparation date of the Financial Statements, as well as the revenues and expenses presented in the fiscal year in question. Despite the fact that these estimates are based on the best possible knowledge of management as regards current conditions, actual results may differ from these estimates in the end.

Estimates and judgments are continuously evaluated, and are based on actual data and other factors, including anticipation of future events that are to be expected under reasonable conditions.

The sectors that require a higher degree of judgment and where the assumptions and estimations are significant for the Financial Statements are noted below:

Significant accounting estimates and assumptions

Income tax

Current tax obligations, both for the current as well as for previous fiscal years, are calculated based on the amounts that are expected to be paid to the tax authorities, using the tax rates that have been legislated up until the balance sheet date. Income tax in the income statement includes the tax for the current year, as expected to be declared in the income tax declaration, as well as estimated additional tax assessments that may be imposed by the tax authorities during the auditing of the unaudited fiscal years. These assumptions take into consideration past experience and an analysis of current facts and circumstances. As such, the final income tax settlement may deviate from the income tax booked in the financial statements.

If the final tax figure is different than the amount initially recognized, the difference will affect the income tax in the fiscal year the determination of the tax differences takes place (note 5.39).

Provisions for bad debts

The management of the Group periodically reexamines the adequacy of the provision for bad debts in conjunction with its credit policy, and by taking into consideration information provided by the Legal Affairs Department of the Group, which are the result of the processing of the relevant historical data and recent developments in the cases that it handles (note 5.31).

The provision balance is appropriately adjusted in order to reflect any potential loss.

Useful lives of tangible and intangible assets - Valuation

Management makes certain estimates concerning the useful life of depreciable assets. These remaining useful lives are periodically reexamined in order to estimate whether they continue to be appropriate. In addition, management evaluates market conditions in the real estate market and makes estimates regarding their valuation (note 5.28).

Defined benefits plans

The cost of the benefits for defined benefits plans is calculated using actuarial estimates, which in turn use assumptions about the discount rates, the rate of salary increases, and mortality rates. Due to the long term nature of these plans, these assumptions are subject to significant uncertainty, and are reevaluated on each reporting date.

Management strives to estimate in the best possible manner these parameters on each reporting date when this provision is revised (note 5.19).

Impairment check for participations

The Company carries out an impairment check of their participations when there are impairment indications. In order to perform the impairment check, a determination of the "value in use" of the subsidiaries takes place.



This determination of the value in use requires that the future cash flows of each subsidiary be determined, and the appropriate discount rate selected, based on which the present value of the abovementioned future flows is determined (note 5.30).

Deferred tax claims

Deferred tax claims are recognized for all deductible temporary differences and tax losses carried forward to the extent that it is probable that taxable profits will be available in the future to be used against those deductible temporary differences and tax losses carried forward. Significant estimates by Management are required in order to ascertain the size of the deferred tax claim that may be recognized, based on the possible time and size of future taxable profits in conjunction with the tax planning of the entity (note 5.35).

Contingent liabilities

The existence of contingent liabilities requires that Management constantly make assumptions and value judgments regarding the possibility that future events may or may not occur, as well as the effect that these events could have on the activity of the Group.

Estimations – sources of uncertainty

There are no significant assumptions that have been made about the future or other sources of uncertainty in the estimations which may cause significant risk for material adjustment in the book value of the assets and liabilities in the following fiscal year.

The economic crisis in the country intensifies uncertainty and concern. Following the agreement with the creditors in the EU and the Eurozone however, and the completion of the evaluation of the program by the Institutions, Greece is gradually expected to overcome the economic crisis and, supported by the far-reaching and necessary structural changes, enter a growth phase.

Going concern

Management examines the main financial data and, on occasion, the fulfillment of medium term budgets, together with the existing loan conditions, when available, in order to arrive at the conclusion that the assumption of going concern is appropriate for use in preparing the annual financial statements of the Group and the Company.

It is estimated that after exiting from the Memoranda, the crisis that the Greek economy faces will gradually be overcome and that the country will be able to stand on its own two feet. This fact, together with debt restructuring, creates an opportunity of high expectations for the country and the economy. The lifting of the capital controls will help restore a healthy economic climate and environment in Greece. A large bet is the speed with which the country can fully regain market access. The companies of the Group are very well placed in the domestic and international capital markets, and are well organized in order in order to overcome any adversities they face.

Modifications in the published data of the Group and the Company in the Statement of Comprehensive Income

As part of the effort to provide greater transparency and more meaningful information to investors, a reclassification of accounts in the Statement of Comprehensive Income took place. As a result of these changes, it is required that the published data for the corresponding period last year be adjusted accordingly, in order to make the two periods comparable.

The table below presents the classification of the published Statement of Comprehensive Income of the Group and the Company to the new accounts structure that the Group decided to implement starting in fiscal year 2018.

SIX MONTH 2018 FINANCIAL REPORT



		Group		Comp	Company		
		01.01	01.01	01.01	01.01		
	note	30.06.2017	30.06.2017	30.06.2017	30.06.2017		
		Modified	Published	Modified	Published		
Revenue							
Trading	5.7	2,161	2,161	2,167	2,166		
Clearing	5.8	4,007	4,007	0	0		
Settlement	5.9	495	495	0	0		
Exchange services	5.10	1,617	1,617	1,617	1,617		
Depository services	5.11	1,285	1,285	0	0		
Clearinghouse services	5.12	125	125	0	0		
Data feed	5.13	1,461	1,461	1,604	1,604		
IT services	5.14	157	157	134	134		
Revenue from re-invoiced expenses	5.15	650	650	603	603		
New Services (XNET, CP CSE - Sibex, IT etc)	5.16	875	875	355	355		
Other services	5.17	209	212	290	291		
Total turnover		13,042	13,045	6,770	6,770		
Hellenic Capital Market Commission fee	5.18	(511)	(511)	(197)	(197)		
Total Operating revenue	5.10	12,531	12,534	6,573	6,573		
Costs & Expenses		12,551	12,554	0,575	0,575		
Personnel remuneration and expenses	5.19	4,630	4,630	2,623	2,623		
Third party remuneration and expenses	5.20	4,030	4,030	163	163		
Utilities	5.20	320	320	44	44		
Maintenance / IT support	5.21	583	583	44	44		
Other Taxes	5.22	424					
			424	250	250 53		
Building / equipment management	5.24	275	275 143	53	127		
Marketing and advertising expenses		0	-	-			
Participation in organizations expenses		0	223	0	195		
Insurance premiums		0	199	0	185		
Operating expenses		0	197	0	281		
BoG - cash settlement		0	27	0	0		
Other expenses	5.25	0	57	0	29		
Other operating expenses	5.25	843	0	817			
Total operating expenses before new activities and depreciation		7,409	7,412	4,358	4,358		
Re-invoiced expenses	5.26	545	545	463	463		
Expenses from new activities (XNET, CSE-SIBEX CP, IT)	5.27	415	415	36	36		
Provisions for bad debts		400	400	0	0		
Total operating expenses, including new activities		8,769	8,772	4,857	4,857		
Earnings before Interest, Taxes, Depreciation & Amortization(EBITDA)		3,762	3,762	1,716	1,716		
Depreciation	5.28 & 5.29	(1,488)	(1,488)	(757)	(757)		
Earnings Before Interest and Taxes (EBIT)		2,274	2,274	959	959		
Capital income	5.33	156	156	90	90		
Dividend income	5.37	0	0	803	803		
Financial expenses	5.33	(83)	(83)	(25)	(25)		
Earnings Before Tax (EBT)		2,347	2,347	1,827	1,827		
Income tax	5.39	(821)	(821)	(320)	(320)		
Profits after tax		1,526	1,526	1,507	1,507		



5.3. Basic Accounting Principles

The basic accounting principles adopted by the Group and the Company for the preparation of the attached financial statements are as follows.

5.3.1. Basis for consolidation

(a) Subsidiaries

The Consolidated Financial Statements include the Financial Statements of the Group and its subsidiaries. Subsidiaries are all companies (including special purpose vehicles) whose operation the Group controls. The Group controls a company when it is exposed to, or has rights to, various returns of the company due to its participation in it, and has the ability to affect these returns through its power over the company.

Subsidiaries are fully consolidated from the date that control is transferred to the Group and cease being consolidated from the date that this control no longer exists.

The Group is using the acquisition method to account for business combinations. The acquisition price for a subsidiary is calculated as the total of the fair values of the assets transferred, liabilities assumed and participation titles issued by the Group. The consideration of the transaction also includes the fair value of the assets or liabilities that arise from a contingent consideration agreement.

In a business combination the costs related to the acquisition are expensed. The identifiable assets acquired, liabilities and contingent liabilities are measured at fair value on the acquisition date. In case of a non-controlling participation, the Group either recognizes it at fair value, or at the equity share value of the company acquired.

If an acquisition takes place in stages, the book value of the assets of the company that is acquired and possessed by the Group on the acquisition date is revalued at fair value. The profit or loss from the revaluation at fair value is recognized in the profit and loss statement.

Each contingent consideration provided by the Group is recognized at fair value on the acquisition date. Subsequent changes in the fair value of the contingent consideration, which is considered an asset or a liability, is recognized either in accordance with IAS 39, in the profit and loss statement, or as a change in other comprehensive income. The contingent consideration that is classified as an asset is not revalued and subsequent arrangements take place in equity.

Goodwill initially recognized in the acquisition cost is the excess amount from the total consideration that was paid and the amount recognized as a non-controlling participation, against the net assets that were acquired and the liabilities assumed. Provided that the fair value of assets is greater than the total consideration, the profit from the transaction is recognized in the Statement of Comprehensive Income.

Following the initial recognition, goodwill is measured at cost minus accumulated impairment losses. For the purposes of an impairment test, goodwill created from company acquisitions is distributed after the acquisition date to each cash generating unit of the Group that is expected to benefit from the acquisition, irrespective on whether the assets or liabilities of the acquired firm are transferred to that unit.

If goodwill is allocated to a cash generating unit and part of the activity of that unit is sold, goodwill associated with that part of the activity is included in the book value when determining profit and loss from the sale. In that case, goodwill sold is calculated based on the relative values of the activity sold and the part of the cash flow generating unit that is maintained.

Any losses are distributed to non-controlling participations, even if the balance becomes negative.

In the Statement of Financial Position of the Company, participations in subsidiaries are shown at the acquisition value less any impairment losses. The acquisition value is adjusted in order to incorporate the changes in the consideration from the changes in the contingent consideration.



The financial statements of the subsidiaries are prepared on the same date and use the same accounting principles as the parent Company. Intra-group transactions, balance and accrued profits/ losses in transactions between the companies of the Group are eliminated.

(b) Changes in the participation in subsidiaries without change in control

Transactions with non-controlling participations that result in control of a subsidiary by the Group being maintained are considered equity transactions, i.e. transactions between owners. The difference between the fair value of the consideration paid and the part of the book value of the net assets of the subsidiary company that has been acquired is also recognized in equity.

(c) Sale of subsidiaries

When the Group ceases to have control, any remaining participation is revalued at fair value, while any differences that arise compared to the book value is recognized in the results. Then the asset is recognized as an associate company, joint venture or financial asset at that fair value.

In addition, relevant amounts previously recognized in other comprehensive income concerning that company, is accounted using the same method that the Group would have used in case the assets or liabilities had been liquidated, i.e. they may be transferred to the results.

5.3.2. Conversion of foreign currencies

Functional and presentation currency

The data in the Financial Statements of the companies of the Group are measured in the currency of the financial environment in which each company functions (functional currency). The consolidated Financial Statements are presented in euro, the functional currency of the parent company.

Transactions and balances

Transactions in foreign currency are converted to the functional currency using the exchange rates in effect on the date of the transactions. Profits and losses that arise from the settlement of transactions in foreign currency, as well as from the valuation, at the end of the fiscal year, of the currency assets and liabilities that are expressed in foreign currency, are booked in the Statement of Comprehensive Income. Foreign exchange differences from non-currency assets that are valued at fair value are considered part of the fair value and are therefore booked just like differences in fair value.

5.3.3. Tangible assets

Investments in real estate

Investments in real estate are those assets which are owned either for rental income or for capital gains or both. Plots of land and buildings are the only investments considered investments in real estate.

Investments in real estate are initially measured at cost. Initial cost includes transaction expenses: professional and legal expenses, transfer taxes and other direct costs.

Following the initial measurement, investments in real estate are measured at cost minus accumulated depreciation.

Transfers to investments in real estate only take place when the purpose of their use changes, as demonstrated with the end of their use, the start of a long term financial lease to third parties or the completion of their construction or development. Transfers from investments in real estate only take place when there is a change in use, as demonstrated by the start of their use by the Group or the start of development with the intent to sell.



For a transfer from investments in real estate that is presented at fair value to owner-occupied property, the cost of the property for subsequent accounting treatment (in accordance with IAS 16), is the acquisition cost minus accumulated depreciation.

Depreciation of investments in real estate (except plots of land which are not depreciated) is calculated using the straight line method for the duration of their useful life, which is estimated at 25 years.

The useful life of investments in real estate and their salvage values are revised annually. When the book value of investments in real estate exceeds their recoverable value, the difference (impairment) is recognized as an expense in the Statement of Comprehensive Income.

Tangible owner-occupied assets

Real estate (plots of land – buildings) belonging to fixed assets are recorded at their adjusted values, during the first application of IFRS, and subsequently at fair value which is based on estimated made by independent estimators, less future building depreciation. Estimations are made regularly in order for the fair value of the adjusted asset not to differ significantly from its book value.

Other tangible assets used are recorded in the financial statements at acquisition cost minus accumulated depreciation and any value impairment provisions. The acquisition cost includes all the direct expenses for the acquisition of the assets.

Later expenses are recognized as an increase in the book value of the tangible fixed assets or as a separate asset only if it is probable that future financial benefits will flow to the Group, and the cost can be reliably measured.

The cost of repairs and maintenance is recognized in the Statement of Comprehensive Income when incurred.

Depreciation of other tangible assets (except plots of land which are not depreciated) is calculated using the straight line method during their useful life.

The useful lives of assets are shown below:

	Useful life after 1.1.2014
Buildings and construction	25 years ή 4%
Machinery	5 years ή 20%
Means of transportation	6.25 years ή 16%
Other equipment	5-10 years ή 20-10%

The useful life of tangible assets and their salvage values are revised annually. When the book value of the fixed assets exceeds their recoverable value, the difference (impairment) is recognized as an expense in the Statement of Comprehensive Income.

When tangible assets are retired or sold, the associated cost and the accumulated depreciation are eliminated from the relevant accounts at the time the asset is retired or sold, and the associated profits or losses are recognized in the Statement of Comprehensive Income.

5.3.4. Intangible assets

Intangible assets include software licenses valued at the acquisition cost minus accumulated depreciation and any impairment. Depreciation is calculated using the straight line method during the useful life of these assets, which is estimated to be approximately 3 years.

It is noted that the depreciation rate applied by the Group for development – upgrade of its core systems is 10%.



5.3.5. Impairment of non-financial assets

The Company and the Group examine at each date of the financial statements, whether there are impairment indications for non-financial assets. The book values of assets are revised for any impairment, whenever events or changed circumstances indicate that the book value may not be recoverable. When the book value of an asset exceeds its recoverable value, an impairment loss is recognized in the Statement of Comprehensive Income. The recoverable amount is calculated as the greater of the fair value less sale expenses and the value-in-use.

The fair value less sale expenses is the amount that results from the sale of an asset in an independent transaction between informed and willing parties, after subtracting all additional direct sale expenses, while the value-in-use is the present value of the estimated future cash flows that are expected to occur from the continuous use of the asset and its disposal at the end of its useful life. In order to evaluate the impairment, the assets are grouped at the lowest level for which there are discrete recognizable cash flows.

5.3.6. Financial instruments

Financial instruments are presented as claims, liabilities, or elements of equity, based on the substance or contents of the relevant contracts from which they arise. Interest, dividends, profits or losses which arise from financial products designated as claims or liabilities are accounted for as income or expenses respectively. Dividends distributed to shareholders are recognized directly to equity. Financial instruments are offset when the Company has this right according to the law and intends to offset on a net basis (between them) or to recover the asset and to offset the liability at the same time.

Securities are documents (titles) incorporating a right on a specific asset which can be valued in cash. These titles are either registered or bearer. The portfolio of the Company is composed of stocks.

Purchases and sales of financial instruments are recognized on the day of the transaction, which is the day the Group is obliged to purchase or sell the instrument.

Starting on 1 January 2018 with the application of IFRS 9, the Group and the Company continue to measure stocks at fair value through other comprehensive income. Profits and losses at the time of sale are transferred to retained earnings.

The financial assets of the Group are classified in the following categories based on the nature of the contract and the purpose for which they were acquired. The decision for the classification is taken by management when the asset is initially recognized.

Financial instruments at book value

Includes non-derivative financial assets with fixed or determinable payments that are not traded on an active market and are not intended to be sold.

They are included in current assets unless they expire in a period of longer than 12 months from the date of the Financial Statements.

Financial claims and financial liabilities in the statement of financial position include cash & cash equivalents, third party assets in an ATHEXClear account, securities, commercial and other liabilities, participations, short and long term liabilities.

Financial instruments at fair value through other comprehensive income

Financial assets in this category are equity instruments that are measured at fair value through other comprehensive income. Changes in their carrying amount are recognized in the statement of comprehensive income ("Other comprehensive income"). Gains or losses on sale are transferred to retained earnings without the profit or loss being transferred to the income statement when they are recognized. Equity instruments at fair value through other comprehensive income are not subject to impairment. Dividends on such investments continue to be recognized in the income statement unless they represent a recovering part of the cost of the investment.

The fair value of investments traded in active markets is determined by current stock exchange offer prices.



The Group ceases to recognize (i.e. withdraw from the Statement of Financial Position) a financial asset (or, where appropriate, part of the financial asset or part of a group of similar financial assets) when:

- The contractual rights to the cash flows of the financial asset expire; or
- It transfers the contractual rights to the cash flows of the financial asset or undertake a contractual obligation to pay all those cash flows on behalf of the associated recipients without substantial delay through a transfer agreement and either (a) the Company has effectively transferred all the risks and rewards of ownership of the financial asset; or (b) the Company has neither transferred nor effectively retained all the risks and rewards of ownership of the financial asset; but has transferred control of the financial asset.

5.3.7. Clients and other trade receivables

Client receivables are initially recognized at fair value, and subsequently valued at amortized cost with the real interest rate, less any impairment losses. On every financial statements date, all past due or bad debts are evaluated in order to determine whether or not a provision for bad debts is required. The balance of the particular provision for bad debts is appropriately adjusted on each closing date of the financial statements in order to reflect the possible risks.

It is the policy of the Group almost never to write-off any such claims until all possible legal recourse for their collection has been exhausted. Commercial and other short term client claims and debtors are usually settled by the Group and the Company within 60 days, while if they become past due, no late payment fees are charged to clients.

Impairment

The Group and the Company recognize impairment provisions for expected credit losses for all financial assets.

Expected credit losses are based on the difference between the contractual cash flows and all cash flows that the Group (or the Company) expects to receive. The difference is discounted using an estimate of the initial effective interest rate of the financial asset.

For contractual assets, trade receivables and leases, the Group and the Company applied the simplified approach of the standard and calculated the expected credit losses on the basis of the expected credit losses over the life of those assets.

For other financial assets, expected credit losses are calculated on the basis of the losses for the next 12 months. Expected credit losses over the next 12 months are part of the expected credit losses over the life of financial assets resulting from the probability of default of an item within the next 12 months from the reporting date. However, when there is a significant increase in credit risk from the initial recognition, the impairment provision will be based on the expected credit losses over the life of the asset.

5.3.8. Cash and cash equivalents

Cash and cash equivalents include cash at hand, sight deposits and short term (up to 3 months) investments, having high liquidity and low risk.

For the purposes of preparing the Statement of Cash Flows, cash assets consist of cash and bank deposits, as well as cash equivalents as described above.

5.3.9. Third party balances in ATHEXClear bank accounts

In order to comply with the corporate governance framework defined by Regulation (EU) 648/2012 of the European Parliament and Council (EMIR Regulation), the Company keeps all cash collateral that are being managed by the Company and concern the cash market and the derivatives market, as well as its own cash balances, in an account that it maintains at the Bank of Greece as a direct participant over the internet to the TARGET2-GR Express Transfer of Capital and Settlement System in real time (TARGET2-GR).

Therefore its own cash balance and the balances of third parties (margins) are deposited in the same account that ATHEXClear maintains at the Bank of Greece, and as a result a separation of the assets is necessary in order for the collateral that ATHEXClear collects to be shown separately in the current assets of 30.06.2018 and 31.12.2017. In the Statement of Financial Position of 30.06.2018 and 31.12.2017, they are reported as equal amounts in both current assets and short term liabilities as "third party balances at the bank account of the company" and concern exclusively the margins in the derivatives market that were deposited in the bank account maintained by ATHEXClear at the BoG on 30.06.2018 and 31.12.2017 respectively.

5.3.10. Share Capital

Share capital includes the common stock of the Company that has been issued and is in circulation.

Treasury stock concerns the shares of the Company (EXAE) that are purchased on the Exchange by the Company or subsidiary of the Group, following a decision by the Annual General Meeting of shareholders. The acquisition cost as well as the associated expenses of acquiring treasury stock is, in accordance with IFRS, shown in equity, reducing share capital.

The acquisition cost of treasury stock is shown as reducing Company equity, up until the treasury stock is sold or cancelled.

5.3.11. Current and deferred income tax

Current and deferred tax is calculated based on the Financial Statements in accordance with the tax laws in effect in Greece. Income tax is calculated based on the profits of each company as adjusted in their tax declarations, any additional income tax that is assessed by the tax audits of the tax authorities, and from deferred income taxes based on the enacted tax rates.

Deferred income tax is determined using the liability method and arises from the temporary differences between the book value and the tax basis of the assets and liabilities.

Deferred tax is not recognized when it arises at the initial recognition of an asset or a liability from a transaction that is not a business combination and at the time of the transaction it affects neither the accounting nor the taxable result (profit / loss).

Deferred tax is determined using the tax rates (and tax laws) that have been implemented or effectively implemented until the date of the Financial Statements and are expected to be implemented when the asset in question is recovered or the liability settled.

Deferred tax claims are recognized to the extent that there will be a future tax gain for the offset of the temporary difference that creates the deferred tax claim.

Deferred income tax is determined on the temporary differences that arise from investments in subsidiaries and associated companies, with the exception of the case when reversal of the temporary differences is controlled by the Group and it is probable that the temporary differences will not be reversed in the foreseeable future.

Deferred tax claims and liabilities are offset when there is a legally enforceable right to offset current tax claims and liabilities, and when the deferred tax claims and liabilities concern income tax that is imposed by the same tax authority either to the same taxable entity or to different taxable entities when there is the intention to settle the balances on a net basis.

5.3.12. Employee benefits

Current benefits

Current benefits to employees in cash and in kind are recognized as an expense when they accrue.

Staff retirement obligations

Staff retirement obligations include both defined contributions plans as well as defined benefits plans.



Defined contribution plan

Under the defined contributions plan, the obligation of the company (legal) is limited to the amount agreed to be contributed to the organization (social security fund) which manages the contributions and grants the benefits (pensions, health care etc.).

The accrued cost of the defined contributions schemes is recognized as an expense in the corresponding period.

Defined benefits plan

The defined benefits plan of the Group concerns its legal obligation to pay a lump sum indemnity to each employee upon retirement.

The liability recognized in the Statement of Financial Position for this plan is the present value of the obligation for the defined benefit depending on the accrued right of the employees and in relation to the specific point of time that this benefit is expected to be paid.

The present value of the defined benefit liability is calculated by discounting the future cash outflows with a discount rate equal to the interest rate of long-term, high credit rating corporate bonds that have a duration approximately equal to the pension plan.

The actuarial profits or losses that arise from the adjustments based on historical data are directly recognized in Other Comprehensive Income (note 5.20).

5.3.13. Government grants

Government grants related to the subsidy of tangible assets are recognized when there is reasonable assurance that the grant will be collected and that the Company will comply with the terms and conditions that have been set for payment.

When government grants are related to an asset, the fair value is recorded in long term liabilities as deferred revenue and is transferred to the Statement of Comprehensive Income in equal annual installments based on the expected useful life of the relevant asset that was subsidized.

When the grant is related to an expense, it is recognized as revenue in the fiscal year required in order for the grant to correspond on a systematic basis to the expenses it is intended to compensate. Grant depreciation is recorded in "Other Revenue" in the Statement of Comprehensive Income.

5.3.14. Provisions and contingent liabilities

Provisions are recognized when:

- the Company has a current commitment (legal or inferred) as a result of a past event;
- it is likely that an outflow of resources incorporating financial benefits will be required to settle the commitment and it is possible to reliably estimate the amount of the commitment.

Provisions are re-examined on the preparation date of the financial statements and are adjusted so as to present the best possible estimates.

If the effect of the time value of money is significant, provisions are recognized on a discounted basis by using an interest rate before taxes that reflects that current market estimates about the time value of money and the risks associated with the liability. When provisions are discounted, the increase in the provision due to the passing of time is recognized as a borrowing cost.

Contingent liabilities are not recognized in the financial statements, but are published, unless the possibility of an outflow of resources which incorporate financial benefits is very small. Contingent claims are not recognized in the financial statements, but are published provided the inflow of financial benefit is likely.



5.3.15. Revenue Recognition

The Group and the Company recognize revenue, excluding interest income, dividends as well as any other income from financial instruments (which are recognized in accordance with IFRS9), to the extent that they reflect the consideration that the Company is entitled to from the transfer of the goods and services based on a five step approach:

- Recognition of client contracts
- Recognition of the contract execution terms
- Determination of the consideration of the transaction
- Allocation of the transaction consideration depending on the contract execution terms
- Revenue recognition with the Company fulfills the contract execution terms.

The following specific recognition criteria must also be satisfied when revenue is recognized:

Revenue from shares, bonds, ETFs (Trading, Clearing & Settlement)

It concerns Member subscriptions based on trades in the cash market.

Revenue from stock, bond etc. trading is recognized at the time the transaction is concluded and clearing and settlement takes place at the Exchange.

Collection for trading in the cash market takes place on the day following trade settlement or the third working day of the following month, provided the Member submits such a request.

Revenue from derivative products

It concerns Member subscriptions based on trades in the derivatives market.

Revenue from the derivatives market is recognized at the time the transaction is cleared at Athens Exchange through ATHEXClear, the transactions clearing entity.

Collection for trading in the derivatives market takes place on the day following trade settlement.

Revenue from Members (fees)

It concerns Member subscriptions and IT services to Members.

Revenue is recognized when Members are invoiced at the end of each month or quarter in question.

Revenue from listed companies

Revenue concerning subscriptions, one-off fees, company listings, rights issues, and HERMES System services, are recognized at the time the relevant invoices are issued when the corporate action is completed. Subscriptions are recognized as revenue at the beginning of each quarter.

Revenue from market data vendors

Revenue from this source is recognized at the time of invoicing, together with the completion of the provision of that service.

IT services

Revenue from IT services is recognized at the time the service provided is completed. IT services concern the Exchange trading network and DSS terminal licenses.



Other services

Revenue from other services is recognized at the time the service provided is completed.

Interest income

Interest income is recognized on an accrual basis and with the use of the real interest rate. When there is an impairment indication about the claims, their book value is reduced to their recoverable amount, which is the present value of the expected future cash flows, discounted by the initial real interest rate. Next, interest is assessed at the same interest rate on the impaired (new book) value.

Dividends

Dividend income is recognized when the right to collect by shareholders is finalized; that is, on approval by the General Meeting.

5.3.16. Commercial and other liabilities

Supplier balances and other liabilities are recognized at the cost associated with the fair value of the future payment for the purchase of services rendered. Commercial and other short term liabilities are not interest bearing and are usually settled within 60 days by the Group and the Company.

5.3.17. Expenses

Expenses are recognized in the Statement of Comprehensive Income ("Income Statement") on an accrued basis.

Dividend distribution

The distribution of dividends to shareholders is recognized directly to equity, net of any relevant income tax benefit (until the approval of the financial statements), and is recorded as a liability in the financial statements when distribution is approved by the General Meeting of shareholders.

5.3.18. Profits / (losses) per share

Basic profits / (losses) per share are calculated by dividing the net profits / (losses) that correspond to the shareholders of the parent company by the average weighted number of shares that are in circulation during each year, excluding the average of the common stock that was acquired by the Group as treasury stock.

The adjusted profits / (losses) per share are calculated by dividing the net profit that is distributed to the Parent company shareholders (after it is adjusted for the effects of all potential shares that dilute participation) by the weighted average number of shares in circulation during the year (adjusted for the effect of all potential shares that dilute participation), excluding the average of the common stock that was acquired by the Group as treasury stock.

5.3.19. Research and development

Expenditures for research activities that take place with the intention of the Group to acquire new technical knowledge and expertise are recognized in the Statement of Comprehensive Income as an expense when they occur. Development activities presuppose the drafting of a study or a plan for the production of new or significantly improved products, services and processes. Development costs are capitalized only when the cost of development can be reliably measured, the product or the process is productive, feasible technically and commercially, future financial benefits are expected, and the Group has the intention, having at the same time sufficient means at its disposal, to complete development and use or sell the asset.



The capitalization of expenditures includes the cost of direct consulting service expenses, direct work performed and the appropriate share of general expenses. Other development costs are recognized in the Statement of Comprehensive Income as an expense when they occur.

Development costs that have been capitalized are valued at acquisition cost less accumulated depreciation and accumulated impairment losses and when there is no impairment indication.

Subsequent expenditures are capitalized only when they increase the expected future economic benefits that are incorporated in the specific asset to which they refer. All other expenditures, including expenditures for internally created surplus value and trademarks, are recognized in the Statement of Comprehensive Income.

Depreciation is recognized in the Statement of Comprehensive Income using the straight line method for the duration of the useful life of the intangible assets, starting on the date they are available for use. The useful life for the current and the comparative period in the capitalization of development costs is 10 years.

The profit or loss that arises from derecognizing an intangible asset is determined as the difference between the net disposal proceeds, if they exist, and the book value of the asset. This profit or loss is recognized in the Statement of Comprehensive Income when the asset is derecognized.

5.3.20. Leases

The determination of whether an arrangement contains a lease or not is based on the substance of the transaction on the date the relevant contract is concluded, namely on whether fulfilment of the arrangement depends on the use of one or more assets or whether the arrangement assigns the right to use the asset.

The Group as lessee

Asset leases by third parties where the Group does not assume all risk and asset ownership benefits are treated as operating, and the lease payments are recognized as an expense in the income statement on a consistent basis during the lease.

All leases of the Group are treated as operating leases. They concern office rentals etc.

The Group as lessor

Asset leases to third parties where the Group does not transfer all risks and benefits of asset ownership are treated as operating, and the lease payments are recognized as revenue in the income statement on a consistent basis during the lease.

Initial direct costs incurred by lessors during the negotiation of an operating lease are added to the book value of the leased asset and are recognized over the lease duration on the same basis as the lease revenue.

The Group leases office space. These leases are treated as operating leases.

5.3.21. Determination of fair value

The fair value of a financial asset is the price that someone would obtain from the sale of an asset, or someone would pay for transferring the obligation in a real transaction between market participants on the measurement date. The fair value of financial assets in the financial statements on 30 June 2018 was determined using the best possible estimates by management. When there is no data available, or data from active markets is limited, the fair value valuations are derived from management estimates in accordance with the information available.

The Company uses the following hierarchy for determining and disclosing the fair value of financial means by measurement technique:

Level 1: Traded (non-adjusted) prices in active markets for similar assets or liabilities,

Level 2: Other techniques for which inflows that have a significant impact in recorded fair value are observable, either directly or indirectly,



Level 3: Techniques that use data that have a significant impact on the recorded fair value and are not based on observable market data.

During the fiscal year there were no transfers between levels 1 and 2, nor transfers into and out of level 3 when measuring fair value. In addition, during the same period there was no change in the purpose of any financial asset that would lead to a different classification of this asset.

The amounts with which cash & cash equivalents, claims and short term liabilities are shown in the Statement of Financial Position, approach their corresponding fair values due to their short term maturities. As a result, there are no differences between fair values and the corresponding book values of financial assets and liabilities. The Company does not use financial derivative products.

5.3.22. New standards, amended standards and interpretations

Certain new standards, amendments to standards and interpretations have been issued that are mandatory for periods beginning on or after 1.1.2018. The Group's evaluation of the effect of these new standards, amendments to standards and interpretations is as follows:

Standards and Interpretations effective for the current financial year

• IFRS 9 "Financial Instruments" and subsequent amendments to IFRS 9 and IFRS 7

IFRS 9 replaces the guidance in IAS 39 which deals with the classification and measurement of financial assets and financial liabilities and it also includes an expected credit losses model that replaces the incurred loss impairment model that was applied under IAS 39. IFRS 9 establishes a more principlesbased approach to hedge accounting and addresses inconsistencies and weaknesses in the previous model in IAS 39. There were no significant effects from the application of the new standard.

The main impact of the adoption of IFRS 9 is that impairment losses on trade receivables and contract assets are calculated based on expected estimated contract life (ECL) delays rather than objective data that the company will not be able to collect as it was with previous standards. This does not cause a change in the expected cash flows of the company. On the contrary, it creates a change at the time of the recognition of losses, which in most cases is earlier under IFRS 9 compared to previous standards.

The Group and the Company have applied the standard from 1 January 2018 retroactively, without reviewing comparative information from previous years. The adoption of the IFRS 9 took place without a revision of the comparative information and therefore the adjustments resulting from the new classification and the new impairment rules did not appear in the financial position of 31 December 2017 but were recognized in the financial position at 1 January 2018.

On 1 January 2018 (date of initial application of IFRS 9), management of the Group (and the Company) assessed the business models in effect for financial assets possessed by the Group and the Company, and classified them in the appropriate category of IFRS 9.

The main effect of this reclassification is that as of 1 January 2018, investments of the Company in shares traded in equity markets were reclassified from the "Financial assets available for sale" category to "Financial assets at fair value through other income." Additionally, the related revaluation reserve, which amounted to €1,575 thousand on 1 January 2018, was transferred from "Retained Earnings" to "Special securities valuation reserve."

In addition, the Group applied the simplified approach of IFRS 9 for impairment of expected credit losses on trade and other receivables balances at the date of initial application. Application of the new standard had no impact on the interim financial statements of the Group and the Company.

• IFRS 15 "Revenue from Contracts with Customers"

IFRS 15 has been issued in May 2014. The objective of the standard is to provide a single, comprehensive revenue recognition model for all contracts with customers to improve comparability within industries, across industries, and across capital markets. It contains principles that an entity will apply to determine the measurement of revenue and timing of when it is recognized. The underlying



principle is that an entity recognises revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services.

On January 1, 2018, the Group and the Company adopted IFRIC 15 using the revised retroactive method, based on which any transition effect is accretively recognized in retained earnings and the comparative amounts are not restated. However, both the Group and the Company had no effect on their profitability or financial position at the time of the first application of IFRS 15. Therefore, no adjustment was made to retained earnings on 1 January 2018.

• IFRS 4 (Amendments) "Applying IFRS 9 Financial instruments with IFRS 4 Insurance contracts"

The amendments introduce two approaches. The amended standard: a) gives all companies that issue insurance contracts the option to recognize in other comprehensive income, rather than profit or loss, the volatility that could arise when IFRS 9 is applied before the new insurance contracts standard is issued; and b) gives companies, whose activities are predominantly connected with insurance, an optional temporary exemption from applying IFRS 9 until 2021. The entities that have elected to defer the application of IFRS 9 continue to apply the existing financial instruments standard—IAS 39.

• IFRS 2 (Amendments) "Classification and measurement of Shared-based Payment transactions"

The amendment clarifies the measurement basis for cash-settled, share-based payments and the accounting for modifications that change an award from cash-settled to equity-settled. It also introduces an exception to the principles in IFRS 2 that will require an award to be treated as if it was wholly equity-settled, where an employer is obliged to withhold an amount for the employee's tax obligation associated with a share-based payment and pay that amount to the tax authority.

• IAS 40 (Amendments) "Transfers of Investment Property"

The amendments clarified that to transfer to, or from, investment properties there must be a change in use. To conclude if a property has changed use there should be an assessment of whether the property meets the definition and the change must be supported by evidence.

• IFRIC 22 "Foreign currency transactions and advance consideration"

The interpretation provides guidance on how to determine the date of the transaction when applying the standard on foreign currency transactions, IAS 21. The interpretation applies where an entity either pays or receives consideration in advance for foreign currency-denominated contracts.

Annual Improvements to IFRS 2014 (2014 – 2016 Cycle)

• IAS 28 "Investments in associates and Joint ventures"

The amendments clarified that when venture capital organizations, mutual funds, unit trusts and similar entities use the election to measure their investments in associates or joint ventures at fair value through profit or loss (FVTPL), this election should be made separately for each associate or joint venture at initial recognition.

Standards and Interpretations effective for subsequent periods

• IFRS 9 (Amendments) "Prepayment Features with Negative Compensation" (effective for annual periods beginning on or after 1 January 2019)

The amendments allow companies to measure particular prepayable financial assets with so-called negative compensation at amortized cost or at fair value through other comprehensive income if a specified condition is met—instead of at fair value through profit or loss.



• IFRS 16 "Leases" (effective for annual periods beginning on or after 1 January 2019)

IFRS 16 has been issued in January 2016 and supersedes IAS 17. The objective of the standard is to ensure the lessees and lessors provide relevant information in a manner that faithfully represents those transactions. IFRS 16 introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17. Accordingly, a lessor continues to classify its leases as operating leases or finance leases, and to account for those two types of leases differently. The standard will mainly affect the existing accounting treatment of operating leases of the Group and the Company. However, the Company and the Group have not yet estimated: 1) the amount of assets and liabilities for future payments, which these commitments would create, and 2) the way these commitments would affect both the results, as well as the classification of cash flows.

The standard applies to annual periods that begin on or after 1 January 2019. The Group and the Company do not intend to adopt the standard before the date of mandatory application, and may use the exemption for short term and low value leases.

• **IFRS 17 "Insurance contracts"** (effective for annual periods beginning on or after 1 January 2021)

IFRS 17 has been issued in May 2017 and supersedes IFRS 4. IFRS 17 establishes principles for the recognition, measurement, presentation and disclosure of insurance contracts within the scope of the Standard and its objective is to ensure that an entity provides relevant information that faithfully represents those contracts. The new standard solves the comparison problems created by IFRS 4 by requiring all insurance contracts to be accounted for in a consistent manner. Insurance obligations will be accounted for using current values instead of historical cost. The standard has not yet been endorsed by the EU.

• IAS 28 (Amendments) "Long term interests in associates and joint ventures" (effective for annual periods beginning on or after 1 January 2019)

The amendments clarify that companies account for long-term interests in an associate or joint venture—to which the equity method is not applied—using IFRS 9. The amendments have not yet been endorsed by the EU.

• IFRIC 23 "Uncertainty over income tax treatments" (effective for annual periods beginning on or after 1 January 2019)

The interpretation explains how to recognize and measure deferred and current income tax assets and liabilities where there is uncertainty over a tax treatment. IFRIC 23 applies to all aspects of income tax accounting where there is such uncertainty, including taxable profit or loss, the tax bases of assets and liabilities, tax losses and credits and tax rates. The interpretation has not yet been endorsed by the EU.

• IAS 19 (Amendments) "Plan amendment, curtailment or settlement" (effective for annual periods beginning on or after 1 January 2019)

The amendments specify how companies determine pension expenses when changes to a defined benefit pension plan occur. The amendments have not yet been endorsed by the EU.

Annual Improvements to IFRS (2015 – 2017 Cycle) (effective for annual periods beginning on or after 1 January 2019)

The amendments set out below include changes to four IFRSs. The amendments have not yet been endorsed by the EU.

• IFRS 3 "Business combinations"

The amendments clarify that a company remeasures its previously held interest in a joint operation when it obtains control of the business.

• IFRS 11 "Joint arrangements"

The amendments clarify that a company does not remeasure its previously held interest in a joint operation when it obtains joint control of the business.

• IAS 12 "Income taxes"

The amendments clarify that a company accounts for all income tax consequences of dividend payments in the same way.

• IAS 23 "Borrowing costs"

The amendments clarify that a company treats as part of general borrowings any borrowing originally made to develop an asset when the asset is ready for its intended use or sale.

5.3.23. Rounding

Any differences between the amounts in the financial statements and the corresponding amounts in the notes are due to rounding.

5.4. Risk Management

General – Risk management environment

A major consideration of the Athens Exchange Group is the management of risk that arises from its business activities.

The Group, as organizer of the capital market, has developed a comprehensive framework for managing the risks to which it is exposed, ensuring its sustainability and development, as well as contributing to the stability and security of the capital market.

Athens Exchange Clearing House (ATHEXClear) belongs to the Group; it operates as a central counterparty (CCP) in the clearing of cash and derivatives products, and as such is obliged to satisfy the strict requirements of the EMIR regulatory framework concerning risk management, under which it has been licensed since 2015. Even though risk management at the Group concerns all companies and risk categories, it is recognized that because of its role in the market, ATHEXClear faces and must manage the most significant risk.

The internal and external legal and regulatory framework which ATHEXClear is directly subject to and the Group indirectly with regards to their obligations to monitor and manage risk, includes the Regulation of Clearing of Transferable Securities Transactions in Book Entry Form, the Regulation on the Clearing of Transactions on Derivatives and Regulation (EU) 648/2012 of the European Parliament and Council of July 4th 2012 for OTC derivatives, central counterparties, and trade repositories, known as EMIR (European Market Infrastructure Regulation).

Risk Strategy and Risk Management

The risk strategy of the Group is aligned with its business strategy to provide the appropriate infrastructure for the reliable, safe and unhindered operation of the capital market. In accordance with the strategy of the Group, the risk tolerance level is defined in order to satisfy market needs, limit costs for participants, maximize the exploitation of business opportunities but also ensure market security and compliance with regulatory requirements.

Organizational structure

Besides the comprehensive measures for ensuring the smooth operation of the systems of the Group, each organizational unit of the Group is responsible for monitoring and managing possible risks in such a way so as to react quickly and effectively in case risk events arise.



Continuing the effort of previous years, in 2018 efforts are made to strength the operation of risk management by ATHEXClear, in order to remain aligned with the EMIR Regulation and to follow international good practices.

In particular, as far as ATHEXClear is concerned, the organizational structure that supports risk management includes the following units:

- <u>Board of Directors</u>, which has the final responsibility and accountability regarding the management of the risk management operation of the company. In particular, the Board of Directors defines, determines and documents the appropriate level of risk tolerance and ability of the company to assume risk. In addition, the BoD and senior management ensure that the policies, processes and audits of the company are consistent with the risk tolerance level and the ability of the company to assume risk, and examine ways through which the company recognizes, reports, monitors and manages risks.
- <u>Risk Committee</u>, which advises the Board of Directors on matters of risk management.
- <u>Investments Committee</u>, which decides on the determination of limits and monitors liquidity risk, determines policies and standards for the investment strategy, financing principles, liquidity management, interest rate risk and management.
- <u>Risk Management Department</u>, of the Risk Management & Clearing Division of ATHEXClear, which is sufficiently independent from other departments of the Company, and whose main duty is the comprehensive approach to risks that ATHEXClear faces, in order to recognize them, calculate them and finally manage them. The Risk Management Department possesses the required jurisdiction, the necessary means, know-how and access to all relevant information.
- <u>Chief Risk Officer</u>, heading the Risk Management Department, who reports to the Board of Directors on matters of risk management through the Chairman of the Risk Committee, and implements the risk management framework through the policies and procedures that the Board of Directors enacts.
- <u>Organizational Units</u> which are responsible for recognizing and managing risks within their scope and participate in overall risk management at the Group.

Unified risk management

The services that the Group provides involve various types and levels of risk, and it is recognized that effective risk management consists of the following:

- <u>Recognizing and assessing risks</u>: Analyzing the present and future activities of the Group, recognizing cases in which the Group is exposed to risks. The risks recognized are evaluated as to the potential exposure to loss. This includes in general the estimation of both the possibility that the loss will occur, as well as the potential effects.
- <u>Controlling risks</u>: The arrangements for managing each risk are the key to effective risk management and it is important that they be understood by all personnel. In addition, management is responsible for ensuring the appropriate application of the unified framework for risk management and individual policies / frameworks.
- <u>*Risk containment:*</u> Management identifies the best method for risk containment, taking into consideration costs and benefits. As a general principle, the Group does not assume risks that pose the possibility of catastrophic or significant losses. Likewise, insuring against losses that are relatively predictable and without a material impact is avoided. The alternatives for containing risk depend on the level of tolerance of the Group to various types of risk.
- Monitoring and reporting risks: The Group possesses a comprehensive system for reporting and monitoring risks. In particular, the ATHEXClear Risk Management Department monitors the risk levels of the company on a continuous basis using specialized and approved risk management methods. The main assumptions, the data sources and the processes used in measuring and monitoring risk are documented and tested for reliability on a regular basis through the review and audit and the validation framework.



Risk categories

The Group ensures that it deals with all risks, internal or external, present or future, and especially those that have been recognized as being significant. It is recognized that each service provided by the Group can expose it to any combination of the risks mentioned below.

The usual risks to which, due to the nature of its activities, the Group is exposed to are:

<u>Financial Risk</u>

- Market risk (changes in exchange rates, interest rates, market prices, commodities and volatility)
- Credit risk (mainly counterparty credit risk and from the investment of own assets)
- Liquidity risk (mainly cash flows risk)

Description of categories and main risk factors

Market risk

The Group is exposed to limited market risks in its activities. ATHEXClear as Central Counterparty in the clearing of cash and derivatives products, places its financial assets only in cash at the Bank of Greece. ATHEX and ATHEXCSD invest their cash balances exclusively in time deposits with Greek systemic banks as well as with foreign banks with an excellent rating. In any case, the Group monitors the potential exposure that may lead to market risk and calculates possible assets that it may need to hold against market risk in accordance with the methodology for calculating capital requirements that it applies.

Foreign exchange risk: This risk does not materially affect the operation of the Group, given that transactions with clients & suppliers in foreign currency are limited.

Credit risk

The Group's credit risk mainly concerns transactions in the cash and derivatives markets, in which ATHEXClear operates as Central Counterparty.

The Hellenic Capital Market Commission, with decisions 5, 6 and 7/556/8.7.2010 granted to ATHEXClear a license to manage and operate systems to clear trades on dematerialized securities (Securities System) and derivatives products (Derivatives System). In this capacity, ATHEXClear assumes the risk that Clearing Members default on their obligations to clear and settle trades, as described in the Rulebooks (credit counterparty risk). In addition, as of 22 January 2015 has been licensed as a Central Counterparty under the EMIR regulation, and has a very strict framework for managing risk.

ATHEXClear has enacted and is implementing a number of mechanisms and financial assets to cover risk, and is responsible for the smooth operation of the system in general, in conjunction with the scope and scale of trades whose clearing it has undertaken. The mechanisms that ATHEXClear applies are described in the "Regulation of Clearing of Transferable Securities Transactions in Book Entry Form," in the "Regulation on the Clearing of Transactions on Derivatives," as well as the relevant decisions of the ATHEXClear BoD.

In order to obtain the status of Clearing Member, the Intermediary or Bank must conform to the minimum specific financial and operational adequacy requirements, as specified in the Clearing Rulebooks; these requirements must be continuously fulfilled during the time the Member is in operation.

Both for the cash market, as well as for the derivatives market, ATHEXClear clears trades assuming the role of Central Counterparty. In order to cover the risk against its clearing members, ATHEXClear monitors and calculates on a daily basis (end-of-day but also during the day in almost real time) the margin for each clearing account of the Clearing Members, and blocks the corresponding additional guarantees in the form of cash and/ or transferable securities.

In addition, it manages the Clearing Funds of the two markets which act as risk sharing funds to which Clearing Members contribute exclusively in cash. Based on the margins that have been blocked, the credit limits allocated to members are continuously reviewed, fulfillment of which is monitored in real time during the trading session. The minimum size of the Clearing Funds is recalculated at least on a monthly basis, in



accordance with the provisions of the Rulebook, in order for its size to be adequate to cover at any time the obligations imposed by EMIR, that is the absorption of losses beyond the margins in case of a default of a group of clearing members under extreme market conditions.

The risk management models and the parameters used are examined as to their effectiveness on a daily basis and under extreme but possible scenarios (Margin/Haircut Back-Testing, Default Fund Coverage under Stress).

Besides the counterparty credit risk that ATHEXClear faces, the Group faces credit risk from the investment of its own assets. As part of its Investment Policy, specific principles are defined for investing cash assets. Specifically for ATHEXClear, asset placements are as a rule made at the Bank of Greece, a fact that minimizes its risk exposure.

At the remaining companies of the Group, short term asset placements not exceeding three months take place at Greek Systemic Banks, in accordance with the Investments Policy set by the Strategic Investments Committee of the ATHEX Group.

The ratings of the Greek Systemic Banks by an International Rating Agency are shown below:

				STANDARD & POOR' S				
			Outlook	Long Term Local Issuer Credit	Short Term Local Issuer Credit	Long Term Foreign Issuer Credit	Short Term Foreign Issuer Credit	
ALPHA BANK AE	ALPHA GA Equity	GR	STABLE	B-	В	B-	В	
EUROBANK ERGASIAS SA	EUROB GA Equity	GR	STABLE	B-	В	B-	В	
NATIONAL BANK OF GREECE	ETE GA Equity	GR	STABLE	B-	В	B-	В	
PIRAEUS BANK S.A	TPEIR GA Equity	GR	STABLE	B-	В	B-	В	
BANK OF GREECE	TELL GA Equity	GR	#N/A	NR	NR	NR	NR	
HSBC BANK PLC	MID LN Equity	GB	STABLE	AA-	A-1+	AA-	A-1+	

BANK RATING VALUES

Out of total cash and cash equivalents of the Group amounting to €85m, approximately €55m is placed with Greek systemic banks, and the remaining approximately €30m at the Bank of Greece.

Liquidity Risk

Liquidity risk as a whole for the Group is maintained at low levels by maintaining adequate cash.

The main liquidity risk for the Group mainly concerns transactions in the cash market and the derivatives market in which ATHEXClear operates as Central Counterparty.

In particular for ATHEXClear, the aim is to maintain an adequate liquidity level in order to ensure that it is in a position to fulfill its obligations concerning payments or settlement in all currencies that are payable, at the end of each day and / or, if required, on an intraday basis. The estimation of the size of the obligations of ATHEXClear is done both based on its business plan, as well as based on possible, but unforeseen, events.

ATHEXClear's liquidity is monitored based on the criteria imposed by EMIR. On a daily basis, and under extreme but possible market scenaria, it is examined whether cash required will be sufficient, following the default by two (2) groups of clearing members to which ATHEXClear has the greatest demand for liquidity to close-out their positions separately for each market (equities, derivatives). In addition, the overall liquidity needs of ATHEXClear are monitored on a daily basis using liquidity gap analysis.



Internal Audit and Risk Management

A primary concern for the Company is the development and continuous improvement and upgrade of the Internal Audit System, which covers all of the recorded audit mechanisms and processes that cover the whole spectrum of daily operations and processes of the Company.

In particular, as regards the financial operation of the Company, a system of safeguards is in place that prevents or detects significant errors in time in order to ensure the reliability of the financial statements, the effectiveness and efficiency of operations and compliance with the rules and regulations. Based on specific significance criteria (quantitative and qualitative), important accounts are identified, procedures are recorded, responsibilities and policies are assigned and checkpoints are designed and are applied on a continuous basis by management and staff.

The Board of Directors has the ultimate responsibility to determine the Internal Audit System of the Company, as well as monitor and evaluate its effectiveness and adequacy.

Responsible for auditing the observance of the Internal Audit System: a) the Audit Committee and b) the Internal Audit Division.

The <u>Audit Committee</u> of the Company has been set up by decision of the Board of Directors of the Company and operates based on the Standards for the Professional Application of Internal Audit of the Institute of Internal Auditors, decision 5/204/14.11.2000 of the Hellenic Capital Market Commission, Law 3016/2002 on corporate governance, and Law 3693/2008 on the harmonization of Greek legislation with Directive 2006/43/EC.

The main purpose of the Audit Committee is to assist the Board of Directors in the supervision of the quality, adequacy and effectiveness of the internal audit and risk management system, as well as the quality of the work effectiveness of the Company.

The <u>Internal Audit Division</u> operates in the manner prescribed by the Code of Conduct and the International Professional Practices Framework (IPPF) of the Institute of Internal Auditors (IIA), decision 5/204/14.11.2000 of the Hellenic Capital Market Commission and Law 3016/2002 on corporate governance. The Internal Audit Division reports to the Board of Directors, through the Audit Committee which supervises it.

The main responsibility of the Internal Audit Division is to express an opinion on the compliance or noncompliance of the internal processes of each audited area, as well as the application of the safeguards that have been adopted by Management, in order to prevent and avoid risk.

5.5. Capital Management

The primary aim of the capital management of the Group is to maintain its high credit rating and healthy capital ratios, in order to support and expand the activities of the Group and maximize shareholder value.

There were no changes in the approach adopted by the Group concerning capital management in the 1st half of 2018.

5.6. Segment Information

In accordance with the provisions of IFRS 8, the determination of operating segments is based on a "management approach." Based on this approach, information that is disclosed for operating segments must be that which is based on internal organizational and managerial structures of the Group and the Company, and in the main accounts of the internal financial reports that are being provided to the chief operating decision makers. The chief business decision market of the Group is the Chief Executive Officer (Executive member of the BoD).

An **operating segment** is defined as a group of assets and operations exploited in order to provide products and services, each of which has different risks and returns from other business sectors. For the Group, the main interest in financial information focuses on operating segments since the company's electronic systems – located at its headquarters - are at the disposal of investors irrespective of their physical location.



On 30 June 2018 the core activities of the Group broken down by business sector were as follows:

Group	oup Segment information on 30.06.2018						
	Trading	Clearing	Settlement	Data feed	IT - Other *	Exchange services	Total
Revenue	2,470	4,700	2,198	1,536	2,202	1,596	14,702
Capital income	56	107	50	35	50	36	334
Expenses	(1,585)	(3,016)	(1,411)	(986)	(1,413)	(1,024)	(9,435)
Depreciation	(275)	(523)	(245)	(171)	(245)	(177)	(1,636)
Taxes	(203)	(386)	(180)	(126)	(181)	(131)	(1,207)
Earnings after tax	463	882	412	288	413	300	2,758
Assets	5,121	9,745	4,557	3,185	4,566	3,309	30,483
Cash and cash equivalents	14,272	27,157	12,700	8,875	12,723	9,223	84,950
Other assets	30,283	57,623	26,948	18,832	26,997	19,567	180,250
Total assets	49,676	94,525	44,205	30,892	44,286	32,099	295,683
Total liabilities	31,269	59,501	27,826	19,445	27,877	20,205	186,123

Group	Segment information on 30.06.2017							
	Trading	Clearing	Settlement	Data feed	IT - Other *	Exchange services	Total	
Revenue	2,161	4,132	1,780	1,461	1,891	1,617	13,042	
Capital income	26	49	21	17	23	20	156	
Expenses	(1,551)	(2,966)	(1,278)	(1,049)	(1,358)	(1,161)	(9,363)	
Depreciation	(247)	(471)	(203)	(167)	(216)	(184)	(1,488)	
Taxes	(136)	(260)	(112)	(92)	(119)	(102)	(821)	
Earnings after tax	253	484	208	170	221	190	1,526	
Assets	5,058	9,671	4,166	3,419	4,426	3,784	30,524	
Cash and cash equivalents	15,908	30,417	13,103	10,755	13,920	11,903	96,006	
Other assets	35,016	66,953	28,842	23,673	30,641	26,201	211,326	
Total assets	55,982	107,041	46,111	37,847	48,987	41,888	337,856	
Total liabilities	36,420	69,638	29,999	24,623	31,870	27,252	219,802	

The distribution of expenses was made based on fixed distribution percentages for each business sector.

* In revenue it includes: revenue from re-invoiced expenses, X-NET revenue from other services.

5.7. Trading

Total revenue from trading in the 1st half of 2018 is analyzed in the table below:

	Gro	oup	Company		
	30.06.2018	30.06.2017	30.06.2018	30.06.2017	
Shares	2,123	1,888	2,123	1,894	
Derivatives	336	269	336	269	
ETFs	2	(2)	2	(2)	
Bonds	9	6	9	6	
Total	2,470	2,161	2,470	2,167	

Revenue from stock trading amounted to ≤ 2.1 m vs. ≤ 1.9 m in the corresponding period in 2017, increased by 12.4%. The increase is due to the increase in trading activity in the first half of 2018.

Revenue from trading in the derivatives market increased by 24.9% compared to the 1st half of 2017 as the prices of the underlying securities increased (the average market capitalization increased 17.3% in the first half of 2018 compared to the 1st half of 2017), and as a result the average revenue per contract increased 73.7% (1st half 2018: €0.150 per contract, 1st half 2017: €0.086 per contract).

5.8. Clearing

Revenue from clearing in the 1st half of 2018 is analyzed in the following table:

	Gro	Group		bany
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Shares	3,227	2,849	0	0
Bonds	9	5	0	0
Derivatives	802	629	0	0
ETFs	3	3	0	0
Transfers - Allocations (Special settlement instruction)	180	146	0	0
Trade notification instructions	415	375	0	0
Total	4,636	4,007	0	0

Revenue from share clearing, which consists of revenue from the organized market and the Common Platform, amounted to €3.2m, increased by 13.3% compared to the corresponding period in 2017.

Revenue from transfers – allocations amounted to \leq 180 thousand, increased by 23.3% compared to the corresponding period in 2017, while trade notification instructions amounted to \leq 415 thousand, increased by 10.7%.

Revenue from transactions clearing in the derivatives market increased by 27.5% compared to the 1st half of 2017 as the prices of the underlying securities increased (the average market capitalization increased 17.3% in the first half of 2018 compared to the 1st half of 2017), and as a result the average revenue per contract increased 73.7% (1st half 2018: €0.150 per contract, 1st half 2017: €0.086 per contract).

5.9. Settlement

Revenue from this category is analyzed in the following table:

	Group		Company	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Off-exchange transfers OTC (1)	630	373	0	0
Off-exchange transfers (2)	179	121	0	0
Rectification trades	3	1	0	0
Total	812	495	0	0

- (1) Transactions through DSS operators.
- (2) Transfers, public offers, donations.



5.10. Exchange services

This category includes revenue from issuers for quarterly subscriptions and rights issues from ATHEX listed companies, as well as quarterly ATHEX member subscriptions in the cash and derivatives markets. Exchange services are analyzed in the table below:

	Gro	oup	Company	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Rights issues by listed companies (1)	287	93	287	93
Quarterly subscriptions by listed companies (2)	1,018	1,024	1,018	1,024
Member subscriptions (3)	290	243	290	243
ATHEX listing fees (IPOs) (6)	0	192	0	192
Bonds - Greek government securities	5	0	5	0
Subscriptions of ENA company advisors	11	1	11	1
Revenue from indices (4)	(107)	29	(107)	29
Other services to issuers (listed companies) (5)	92	35	92	35
Total	1,596	1,617	1,596	1,617

- (1) Fees on rights issues by listed companies amounted to €287 thousand (ELVALHALCOR €208 thousand; TERNA ENERGY €21 thousand; ATTICA BANK €35 thousand; NIKAS €6 thousand; TZIRAKIAN PIPEWORKS €4 thousand) vs. €93 thousand (ALPHA BANK €50 thousand; NIKAS €12 thousand; TRASTOR €10 thousand; OPAP €3 thousand etc.).
- (2) Revenue from listed company subscriptions amounted to €1.01m in the 1st half of 2018 vs. €1.02m in the corresponding period in 2017, remaining essentially unchanged.
- (3) Revenue from member subscriptions in the cash market, which depends on members' annual trading activity, amounted to €258 thousand in the 1st half of 2018 vs. €209 thousand in the 1st half of 2017, increased by 23.4%. Revenue from member subscriptions in the derivatives market amounted to €32 thousand in the 1st half of 2018, unchanged compared to the corresponding period in 2017.
- (4) Revenue from corresponding ETF index was negative due to the recalculation of charges concerning previous fiscal years, and as a result credit notes were issued.
- (5) Revenue from other services to issuers increased by 163%. This increase is due to the new services of codifying securities and Electronic Book Building, which in the 1st half of 2018 amounted to €68 thousand; there was no corresponding revenue in 2017.
- (6) Revenue from IPOs at ATHEX was €192 thousand and concerns the listing of ADMIE. In the first half of 2018 there was no corresponding amount.

5.11. Depository Services

This category includes revenue from rights issues by listed companies, quarterly operator subscriptions as well as revenue from inheritances etc. Revenue for this is analyzed in the following table:



	Gro	Group		pany
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Issuers (Rights issues - AXIA LINE et al.) (1)	541	358	0	0
Bonds - Greek government securities	51	59	0	0
Investors	63	45	0	0
Fees from listing at ATHEX (IPOs) (3)	0	180		
Operators (2)	731	643	0	0
Total	1,386	1,285	0	0

- (1) Fees on rights issues by listed companies amounted to €278 thousand in the 1st half of 2018 (ELVALHALCOR €73 thousand; TERNA ENERGY €40 thousand; ATTICA BANK €64 thousand; IASO €27 thousand; NIKAS €24 thousand; TZIRAKIAN €19 thousand) as well as from the listing of corporate bonds (GEKTERNA €10 thousand; CORAL €10 thousand; B&F €6 thousand) vs. €199 thousand (ALPHA BANK €95 thousand; NIKAS €31 thousand; TRASTOR €30 thousand; BANK OF CYPRUS €4 thousand; DIONIC €4 thousand; FOURLIS €3.5 thousand; SARANTIS €3 thousand; AUDIOVISUAL €3 thousand etc.) as well as from the listing of corporate bonds (MYTILINEOS €10 thousand; SUNLIGHT €10 thousand; OPAP €10 thousand), i.e. increased by 39.7%. Revenue from the provision of information to listed companies through electronic means was €105 thousand in the 1st half of 2018 vs. €101 thousand in the 1st half of 2017. Revenue from notifications of beneficiaries for cash distributions was €37 thousand from the Electronic Order Bool in the 1st half of 2018; there was no such revenue in 2017.
- (2) Revenue from operators includes revenues from monthly subscriptions amounting to €545 thousand vs. €469 thousand in the corresponding period in 2017, and is calculated based on the value of the portfolio of the operators (there was an increase in both the number of portfolios as well as in the average portfolio value); revenue from authorization number usage amounted to €70 thousand vs. €54 thousand; revenue from opening investor accounts €38 thousand vs. €58 thousand in the corresponding period in 2017, as well as other revenue from operators.
- (3) Revenue from IPOs at ATHEX was €180 thousand and concerns the listing of ADMIE. In the first half of 2018 there was no corresponding amount.

5.12. Clearing House Services

Revenue in this category is analyzed in the following table:

	Group		Com	pany
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Derivatives market clearing Member subscriptions	64	125	0	0
Total	64	125	0	0

5.13. Market data

Revenue from this category includes the rebroadcast of ATHEX and CSE market data, as well as revenue from the sale of statistical information. Revenue from this category is analyzed in the following table:



	Group Company		pany	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Revenue from Data Feed	1,507	1,448	1,634	1,590
Revenue from publication sales	29	13	29	14
Total	1,536	1,461	1,663	1,604

5.14. IT services

Revenue from this is analyzed in the table below:

	Group		Company	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
DSS terminal use licenses (1)	81	85	60	62
Services to Members (2)	146	72	146	72
Total	227	157	206	134

- (1) Revenue from DSS terminal licenses amounted to €81 thousand, reduced by 4.7% compared to the corresponding period in 2017.
- (2) Revenue from services to Members increased by 102.8% and includes revenue from ARM-APA €106 thousand (there was no corresponding revenue in 2017); revenue from the use of FIX protocol €20 thousand, unchanged from the first half of 2017; as well as revenue from the use of additional terminals €20 thousand (1st Half of 2017: €21 thousand).

5.15. Revenue from re-invoiced expenses

Revenue from re-invoiced expenses are analyzed in the table below:

	Group		Company	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Exchange trading network (ATHEXNet)	320	246	320	246
General Meeting Services to listed companies (SODALI)	39	34	39	34
Revenue from sponsorships-NY-London roadshows	201	301	201	301
Travel revenue	2	2	2	2
Revenue from electricity - Colocation	97	65	37	19
Total	659	650	598	603

ATHEXnet revenue of €320 thousand concerns the re-invoicing of expenses of the Group for the use of the ATHEX Exchange Transactions network to members. The corresponding expenses are shown in re-invoiced expenses (see note 5.26).

5.16. Ancillary Services (Colocation, Xnet, LEI)

This category includes support services of other markets as well as new services provided by the Group that are not directly related with its core businesses, such as colocation services, which refer to the concession to use the premises and IT systems of the Group, as well as the provision of software services to third parties. This revenue is analyzed in the following table:



	Gro	Group		pany
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Revenue from X-NET/InBroker (see table)	296	324	18	5
Support of other markets (CSE)	123	39	26	30
Colocation Services (1)	353	350	325	293
Market Suite	83	86	26	27
Use of auction platform services - DESFA	30	0	0	0
UNAVISTA LEI - EMIR TR (2)	211	76	0	0
Total	1,096	875	395	355

- (1) The Group offers colocation services from which it received €353 thousand in the 1st half of 2018 (BLOOMBERG, PANTELAKIS SECURITIES, AXIA VENTURES, FORTHNET, MEDNET, CITIGROUP GLOBAL MARKETS, UBS LIMITED, DEUTSCHE BANK A.G, OBRELA SECURITY INDUSTRIES, CREDIT SUISSE SECURITIES, OPAP, SHARELINK, GLOBAL CAPITAL, GUARDIAN TRUST, EGR BROKING LTD, IBG, CAPITAL SECURITIES) vs. €350 thousand in the corresponding period in 2017.
- (2) When reporting transactions, liable parties are recognized based on a Legal Entity Identifier (LEI) code, a unique code for each legal entity that is issued in accordance with the ISO17442 standard and supervised by the Regulatory Oversight Committee for the Global Entity Identifier System (LEIROC) that has been appointed by the Financial Stability Board.

Inbroker/InBrokerPlus

ATHEX owns and provides the InBrokerPlus[®] system on a commercial basis to ATHEX members, as a comprehensive real-time price watch and order routing/management service for end-users (OMS), for capital markets that are supported (ATHEX, CSE, and other foreign markets), as part of the operation of the XNET network by the Group.

	Group		Com	pany
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Revenue from X-NET	58	39	18	5
Revenue from Inbroker	238	285	0	0
Total	296	324	18	5

For the corresponding expenses, refer to 5.27.

5.17. Other services

The breakdown in revenue for this category is shown in the table below:

	Group		Company	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Education (1)	54	44	53	43
Rents (2)	149	139	98	98
Provision of support services	0	0	136	122
Other (3)	18	26	17	27
Total	220	209	304	290



- (1) Concerns revenue from seminars and certifications.
- (2) Rental income for the Group concern the lease of a store in Thessaloniki (monthly lease: €5 thousand) and the Mayer building (monthly lease: €16.4 thousand).
- (3) Other revenue in the first half of 2018 includes €23 thousand currency exchange difference from the provision of liquidity to facilitate XNET settlement.

5.18. Hellenic Capital Market Commission fee

The operating results of the Group in the 1^{st} half of 2018 do not include the Hellenic Capital Market Commission (HCMC) fee, which for the Group amounted to ξ 594 thousand compared to ξ 511 thousand in the corresponding period in 2017. This fee is collected and turned over to the HCMC, within two months following the end of each six-month period. The increase resulted from a corresponding increase in the revenue of the Group from the trading, clearing and settlement of trades on stocks and derivatives, on which it is calculated.

For the Company, the HCMC fee in the first half of 2018 amounted to \leq 216 thousand compared to \leq 197 thousand in the corresponding period in 2017.

5.19. Personnel remuneration and expenses

The change in the number of employees of the Group and the Company, as well as the breakdown in staff remuneration is shown in the following table. It should be noted that there have been internal personnel transfers among the companies of the Group in order for the Company to comply in the provision of services with EU Regulations and Hellenic Capital Market Commission decisions.

	Group		Com	bany
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Salaried staff	219	224	109	114
Total Personnel	219	224	109	114

	Group		Comp	bany
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Personnel remuneration	3,402	3,373	1,897	1,912
Social security contributions	751	749	421	419
Termination benefits	297	17	0	17
Net change in the compensation provision (actuarial valuation)	28	32	16	14
Other benefits (insurance premiums etc.)	407	459	219	261
Total	4,885	4,630	2,553	2,623

The increase in personnel expenses is due to the termination benefits of ≤ 297 thousand that were paid in the 1st half of 2018.



Obligations to employees

The changes in the provision for the 1st half of 2018 are shown in detail in the following table:

Accounting Presentation in accordance with revised IAS 19 (amounts in €)	Gro	oup
	30.06.2018	30.06.2017
Amounts recognized in the Balance Sheet		
Present values liabilities	1,868,231	1,881,784
Net obligation recognized in the Statement of Financial Position	1,868,231	1,881,784
Amounts recognized in the Profit & Loss Statement		
Cost of current employment	13,404	15,063
Net Interest on the liability/asset	14,995	16,468
Regular expense in the Profit & Loss Statement	28,399	31,531
Cost of personnel reduction / mutual agreements/retirement	0	0
Total expense recognized in the Profit & Loss Statement	28,399	31,531
Change in the present value of the liability		
Present value of the obligation at the beginning of the period	1,839,832	1,850,253
Cost of current employment	13,404	15,063
Interest expense	14,995	16,468
Present value of the liability at the end of the period (note 5.37)	1,868,231	1,881,784
Changes in net liability recognized in the balance sheet		
Net liability at the start of the year	1,839,832	1,850,253
Total expense recognized in the Profit & Loss Statement	28,399	31,531
Net Liability at the end of the year(note 5.37)	1,868,231	1,881,784

Accounting Presentation in accordance with revised IAS 19 (amounts in €)	Company		
	30.06.2018	30.06.2017	
Amounts recognized in the Balance Sheet			
Present values liabilities	1,158,931	993,251	
Net obligation recognized in the Statement of Financial Position	1,158,931	993,251	
Amounts recognized in the Profit & Loss Statement			
Cost of current employment	6,443	5,546	
Net Interest on the liability/asset	9,317	8,713	
Regular expense in the Profit & Loss Statement	15,760	14,259	
Total expense recognized in the Profit & Loss Statement	15,760	14,259	
Change in the present value of the liability			
Present value of the obligation at the beginning of the period	1,143,171	978,992	
Cost of current employment	6,443	5,546	
Interest expense	9,317	8,713	
Present value of the liability at the end of the period (note 5.37)	1,158,931	993,251	
Total recognized in equity	0	0	
Changes in net liability recognized in the balance sheet			
Net liability at the start of the year	1,143,171	978,992	
Total expense recognized in the Profit & Loss Statement	15,760	14,259	
Net Liability at the end of the year (note 5.37)	1,158,931	993,251	

The actuarial assumptions used in the actuarial study for the Group in accordance with IAS 19 are as follows:



Actuarial assumptions	Valuat	Valuation dates			
	30.06.2018	30.06.2017			
Discount rate	1.63%	1.78%			
Increase in salaries (long term)	1.00%	1.00%			
Inflation	1.00%	1.00%			
Mortality table	E V K 2000 (Swiss table)	E V K 2000 (Swiss table)			
Personnel turnover	0.50%	0.50%			
	Based on the rules of the Social	Based on the rules of the Social			
Regular retirement age	security fund in which each	security fund in which each			
	employee belongs	employee belongs			
Average duration of the program	17.03	17.82			

5.20. Third party remuneration & expenses

Third party fees and expenses include the remuneration of the members of the BoDs of all the companies of the Group.

	Gro	Group		Company	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017	
BoD member remuneration	34	8	29	6	
Attorney remuneration and expenses	36	30	36	30	
Fees to auditors (1)	53	38	21	15	
Fees to consultants (2)	119	162	58	29	
Fees to FTSE (ATHEX)	51	75	51	75	
Fees to training consultants	5	7	5	8	
Total	298	320	200	163	

- (1) Concerns the fees for the regular audit by the certified auditors of the Group, as well as the Tax Compliance Report.
- (2) Fees to consultants include fees for consultancy services, actuarial study fees, fees for tax and legal services.

5.21. Utilities

	Group		Company	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Fixed - mobile telephony - internet	55	74	13	24
Leased lines - ATHEXNet	48	66	18	14
PPC (Electricity)	216	192	5	6
EYDAP (water)	2	2	0	0
Total	321	334	36	44

5.22. Maintenance / IT Support

Maintenance and IT support includes expenses for the maintenance of the Group's technical infrastructure and support for the IT systems (technical support for the electronic trading platforms, databases, Registry [DSS] etc.), and are contractual obligations.



5.23. Other taxes

Non-deductible Value Added Tax, and other taxes (Property Tax) that burden the cost of services amounted to \notin 443 thousand compared to \notin 424 thousand in the 1st half of 2017. For the Company, other taxes amounted to \notin 282 thousand vs. \notin 250 thousand in the first half of 2017.

5.24. Building / equipment management

This category includes expenses such as: building and equipment insurance premiums, security and cleaning services, building and equipment maintenance and repairs.

	GROUP		COMPANY	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Cleaning and building security services	175	174	49	50
Building repair and maintenance - other equipment	24	88	2	3
Fuel and other generator materials	8	4	0	0
Communal expenses	7	9	0	0
Total	214	275	51	53

5.25. Other operating expenses

Other operating expenses in the first half of 2018 are analyzed in the table below:

	Group		Company	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Bank of Greece (BoG) - cash settlement	24	27	0	0
Stationery	7	4	6	4
Consumables	25	30	25	30
Travel expenses	45	73	29	52
Postal expenses	8	2	7	1
Transportation expenses	26	25	19	19
Storage fees	6	6	4	4
Operation support services	0	0	59	58
Automobile leases	12	8	12	8
Rent expenses	30	30	89	93
Other expenses	42	73	50	42
Electronic equipment fire insurance	8	6	8	6
Means of transport insurance	2	3	2	3
Building fire insurance premiums	13	16	2	2
BoD member civil liability ins. Premiums (D&O, DFL & PI)	169	174	169	174
Subscriptions to professional organizations & contributions	228	210	195	181
Hellenic Capital Market Commission subscription	14	13	14	13
Promotion, reception and hosting expenses	105	104	98	102
Event expenses	61	39	49	25
Total	825	843	837	817



5.26. Re-invoiced expenses

Expenses in this category for the 1st half of 2018 are analyzed in the table below:

	Group		Company	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Leased Lines (ATHEXNet)	245	247	241	242
Sodali expenses (General Meetings)	0	27	0	27
VAT on re-invoiced expenses	70	60	60	51
Promotion, reception and hosting expenses (NY-London roadshows)	149	146	147	143
Electricity consumption - Colocation	89	65	0	0
Other	11	0	11	0
Total	564	545	459	463

The corresponding revenue is shown in note 5.15.

5.27. Expenses for ancillary activities

Expenses on this category are shown in the table below:

	Gro	Group		pany
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Expenses from new activities	3	15	3	13
X-NET Expenses (1)	262	262	26	21
Expenses on IT Services to third parties (2)	252	58	51	2
VAT on expenses for ancillary services	125	80	20	0
Total	642	415	100	36

- 1. InBroker Plus expenses for X-NET (the corresponding revenue is described in note 5.16) concern data feed, which is purchased from foreign exchanges in order for the product to be more attractive to a greater range of clients and vendors. In particular, data feed is purchased from the London Stock Exchange, Euronext, Deutsche Börse et al, aiming to widen the investment horizon of investors.
- Expenses on IT Services amounted to €252 thousand and mainly include the expenses of the LEI EMIR TR service –€201 thousand vs. €56 thousand in the 1st half of 2017 (the corresponding UNAVISTA LEI revenue is described in note 5.16). The 1st half of 2018 also includes expenses for ORACLE services to CSE €41 thousand (compared to €2 thousand in 2017), as well as expenses for TRS to the Capital Market Commission of Cyprus €10 thousand (there was no corresponding amount in 2017).

XNET expenses are analyzed in the table below:

	Group		Company	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Expenses concerning foreign securities	37	40	21	21
Inbroker Plus data feed expenses	225	222	5	0
Total	262	262	26	21



5.28. Owner occupied tangible assets and intangible assets

The book value of the assets of the Group per building on 30.06.2018 is summarily presented in the following table:

Analysis of the Assets of the Group per category in the Statement of Financial Position of 30.06.2018							
		Real Estate investments					
	Athinon Ave. building	Katouni building (Thessaloniki)	Total	Mayer building (note 5.29)			
Plots of land	3,000	1,500	4,500	1,000			
Construction	15,117	309	15,426	1,689			
Means of transportation	7	0	7	0			
Electronic systems	1,275	0	1,275	0			
Communication & other equipment	219	0	219	0			
Intangible assets	6,367	0	6,367	0			
Total	25,985	1,809	27,794	2,689			

Analysis of the Assets of the Group per category in the Statement of Financial Position of 31.12.2017							
		Real Estate investments					
	Athinon Ave. building	Total					
Plots of land	3,000	1,500	4,500	1,000			
Construction	15,562	358	15,920	1,791			
Means of transportation	7	0	7	0			
Electronic systems	799	0	799	0			
Communication & other equipment	239	0	239	0			
Intangible assets	6,084	0	6,084	0			
Total	25,691	1,858	27,549	2,791			

The tangible and intangible assets of the Group on 30.06.2018 and 31.12.2017 are analyzed as follows:

Group	TANGIBLE ASSETS & INTANGIBLE ASSETS								
	Plots of Land	Building and Construction	Machinery & other equip.	Means of Transportation	Furniture fittings and equip.	Intangible Assets	Total		
Acquisition and valuation on 31.12.2016	4,500	26,874	127	168	7,715	8,471	47,855		
Additions in 2017	0	5	0	0	225	2,031	2,261		
Reductions in 2017	0	0	0	0	(18)	0	(18)		
Acquisition and valuation on 31.12.2017	4,500	26,879	127	168	7,922	10,502	50,098		
Accumulated depreciation on 31.12.2016	0	9,883	127	151	6,516	3,031	19,708		
Depreciation in 2017	0	1,076	0	10	382	1,387	2,855		
Accumulated depreciation reduction in 2017	0	0	0	0	(14)	0	(14)		
Accumulated depreciation on 31.12.2017	0	10,959	127	161	6,884	4,418	22,549		
Book value									
on 31.12.2016	4,500	16,991	0	17	1,199	5,440	28,147		
on 31.12.2017	4,500	15,920	0	7	1,038	6,084	27,549		



Group	TANGIBLE ASSETS & INTANGIBLE ASSETS							
	Plots of Land	Building and Construction	Machinery & other equip.	Means of Transportation	Furniture fittings and equip.	Intangible Assets	Total	
Acquisition and valuation on 31.12.2017	4,500	26,879	127	168	7,922	10,502	50,098	
Additions in 2018	0	44	0	0	668	1,067	1,779	
Acquisition and valuation on 30.06.2018	4,500	26,923	127	168	8,590	11,569	51,877	
Accumulated depreciation on 31.12.2017	0	10,959	127	161	6,884	4,418	22,549	
Depreciation in 2018	0	538	0	0	212	784	1,534	
Accumulated depreciation reduction in 2018	0	0	0	0	0	0	0	
Accumulated depreciation on 30.06.2018	0	11,497	127	161	7,096	5,202	24,083	
Book value								
on 31.12.2017	4,500	15,920	0	7	1,038	6,084	27,549	
on 30.06.2018	4,500	15,426	0	7	1,494	6,367	27,794	

The tangible and intangible assets of the Company on 30.06.2018 and 31.12.2017 are analyzed as follows:

Company			TANGIBLE	ASSETS & INTANGIBI	LE ASSETS		
	Plots of Land	Building and Construction	Machinery & other equip.	Means of Transportation	Furniture fittings and equip.	Intangible Assets	Total
Acquisition and valuation on 31.12.2016	0	15	103	159	5,770	6,580	12,627
Additions in 2017	0	0	0	0	148	1,036	1,184
Reductions in 2017	0	0	0	0	0	0	0
Acquisition and valuation on 31.12.2017	0	15	103	159	5,918	7,616	13,811
Accumulated depreciation on 31.12.2016	0	0	103	146	4,870	2,467	7,586
Depreciation in 2017	0	1	0	9	282	1,074	1,366
Accumulated depreciation reduction in 2017	0	0	0	0	0	0	0
Accumulated depreciation on 31.12.2017	0	1	103	155	5,152	3,541	8,952
Book value							
on 31.12.2016	0	15	0	13	900	4,113	5,041
on 31.12.2017	0	14	0	4	766	4.075	4,859



Company	TANGIBLE ASSETS & INTANGIBLE ASSETS							
	Plots of Land	Building and Construction	Machinery & other equip.	Means of Transportation	Furniture fittings and equip.	Intangible Assets	Total	
Acquisition and valuation on 31.12.2017	0	15	103	159	5,918	7,616	13,811	
Additions in 2018	0	0	0	0	287	517	804	
Reductions in 2018	0	0	0	0	0	0	0	
Acquisition and valuation on 30.06.2018	0	15	103	159	6,205	8,133	14,615	
Accumulated depreciation on 31.12.2017	0	1	103	155	5,152	3,541	8,952	
Depreciation in 2018	0	0	0	0	151	554	705	
Accumulated depreciation reduction in 2018	0	0	0	0	0	0	C	
Accumulated depreciation on 30.06.2018	0	1	103	155	5,303	4,095	9,657	
Book value								
on 31.12.2017	0	14	0	4	766	4,075	4,859	
on 30.06.2018	0	14	0	4	902	4,038	4,958	

Intangible assets include the amounts of \leq 303 thousand for the Group and \leq 78 thousand for the Company and concern the capitalization of expenses (CAPEX creation) for systems development by the Group in the 1st half of 2018.

The management of the Group estimates that there are no impairment indications on the owner occupied buildings of the Group.

On 30.06.2018 there were no encumbrances on the assets of the companies of the Group.

5.29. Real Estate Investments

Building (at Acharnon & Mayer)

The book value of the investments in real estate for the Group and the Company on 30.06.2018 and 31.12.2017 is shown in the following table:

Group - Company	
	Total
Acquisition and valuation on 31.12.2016	6,198
Additions in 2017	0
Reductions in 2017	0
Acquisition and valuation on 31.12.2017	6,198
Accumulated depreciation on 31.12.2016	3,202
Depreciation in 2017	205
Accumulated depreciation on 31.12.2017	3,407
Book value	
on 31.12.2016	2,996
on 31.12.2017	2,791



Group - Company	
	Total
Acquisition and valuation on 31.12.2017	6,198
Additions in 2018	0
Reductions in 2018	0
Acquisition and valuation on 30.06.2018	6,198
Accumulated depreciation on 31.12.2017	3,407
Depreciation in 2018	102
Accumulated depreciation reduction in 2018	0
Accumulated depreciation on 30.06.2018	3,509
Book value	
on 31.12.2017	2,791
on 30.06.2018	2,689

The book value of the real estate investments approaches their fair value.

5.30. Investments in subsidiaries and other long term claims

	Gro	Group		bany
	30.06.2018	31.12.2017	30.06.2018	31.12.2017
Participation in ANNA	1	1	1	1
Participation in subsidiaries	0	0	57,880	57,880
Participation in an affiliate (1)	1,550	0	1,550	0
Management committee reserve	11	11	0	0
Valuation from subsidiaries due to stock options	0	0	227	227
Rent guarantees	56	56	10	10
Total	1,618	68	59,668	58,118

 The Company on 27.06.2018 paid up its participation which amounted to €1,550,000 for the founding of the Hellenic Energy Exchange, obtaining 31% of the share capital which is €5,000,000. In the next period, 10% of the participation above will be transferred to the Cyprus Stock Exchange.

The breakdown of the participations of the parent company in the subsidiaries of the Group on 30.06.2018 is shown below:

	% of direct	Number of shares / total number of	Cost	Cost	
	participation	shares	30.06.2018	31.12.2017	
ATHEXCSD (former TSEC)	100	802,600 / 802,600	32,380	32,380	
ATHEXClear	100	8,500,000 / 8,500,000	25,500	25,500	
		Total	57,880	57,880	



5.31. Trade receivables, other receivables and prepayments

All claims are short term and, therefore, no discounting is required on the date of the statement of financial position. The breakdown of clients and other receivables is shown in the following table:

	Gro	up	Comp	bany
	30.06.2018	31.12.2017	30.06.2018	31.12.2017
Clients	6,542	7,421	3,218	3,917
Clients (intra-Group)	0	0	0	251
Less: provisions for bad debts	(3,571)	(3,571)	(1,894)	(1,894)
Net commercial receivables	2,971	3,850	1,324	2,274
Other receivables				
Tax withheld on dividends for offsetting (1)	4,721	4,721	4,421	4,421
Tax (0.20%) (2)	1,783	2,528	0	0
HCMC fee claim	453	453	453	453
Taxes withheld on deposits	101	52	55	26
Accrued income (interest) (3)	608	351	584	310
Other withheld taxes	36	30	21	20
Prepayments & credits accounts	(3)	0	(1)	0
Prepayment of tax audit differences (note 5.39) (4)	983	983	983	983
Other debtors (5)	278	113	482	441
Total other receivables	8,960	9,231	6,998	6,654
Income tax claim (6)	0	168	76	464

- (1) Concerns the dividend withholding tax on dividends received by the Company from its former subsidiary Athens Exchange. Tax offsetting ended in 2014.
- (2) The sales tax on transactions (0.20%) is turned over by members on T+2, however some members take advantage of their right to turn it over in one tranche to ATHEXCSD on the third working day after the end of the month when the transactions took place.
- (3) Concerns interest on cash assets and a provision for market data services for the 1st half of 2018 of €461 thousand for the Group and €516 thousand for the Company (for fiscal year 2017 the corresponding amounts were €232 thousand for the Group and €290 thousand for the Company).
- (4) Concerns the remaining balance, after offsetting with taxes payable, from the prepayment of the tax resulting from the ATHEX tax audit for the period 2008-2010 (note 5.39).
- (5) Other debtors include, among others: claim on the Energy Exchange €174 thousand; claims on HCGC -€35 thousand, as well as a €49 in claims for the lease on the Mayer building for the 2nd quarter. For the Company, an additional amount of €328 thousand is included that concerns a claim for XNET cash settlement by ATHEXCSD.
- (6) On 30.06.2018 the Group does not have a tax liability, while the claim for the Company is €76 thousand. See note 5.39 for further analysis.

The provisions for bad debts are analyzed in the table below:



Provisions for bad debts	Group	Company
Balance on 31.12.2016	2,971	1,694
Additional provisions in 2017	600	200
Balance on 31.12.2017	3,571	1,894
Additional provisions in the 1st half of 2018	0	0
Balance on 30.06.2018	3,571	1,894

5.32. Financial assets at fair value through other income

The category financial assets at fair value through other comprehensive income include the Bank of Piraeus shares that were obtained in exchange for the bond issued by the same bank that the Group possessed. In particular, 13,365,316 shares of Piraeus Bank were acquired at a par value of \pounds 0.30 per share and total value of \pounds 4,009,594.80.

On 31.07.2017 the Bank of Piraeus did a reverse split of its stock, correspondingly increasing its par value together with a reduction in the number of shares outstanding. Thus on 3.8.2017 the company possessed 668.265 shares with a new acquisition cost of ≤ 6.00 per share.

On 31.12.2017 the share price closed at €3.07 and as a result the valuation of the Bank of Piraeus shares was €2,051,573.55.

On 30.06.2018 the share price closed at ≤ 2.92 and as a result the valuation of the Bank of Piraeus shares was $\leq 1,951,333.80$, a loss of $\leq 100,239.75$ compared to the valuation on 31.12.2017 which, in accordance with IFRS 9, is reported in Other Comprehensive Income (OCI).

The change in the value of the Bank of Piraeus shares is analyzed below:

	Group		Company	
	30.06.2018	31.12.2017	30.06.2018	31.12.2017
Balance - start of the fiscal year	2,052	2,793	2,052	2,793
Profit / (Loss) from the valuation of the participation recognized in the Statement of Comprehensive Income	(100)	(742)	(100)	(742)
Balance - end of the fiscal year	1,952	2,052	1,952	2,052

5.33. Cash and cash equivalents

The cash at hand and at bank of the Group are invested in short term interest bearing instruments in order to maximize the benefits for the companies of the Group, in accordance with the policy set by the Strategic Investments Committee of the Company. By placing its cash in short term interest bearing investments, the Group had income of €334 thousand in the first half of 2018 (2017: €156 thousand); for the Company, the corresponding income was €200 thousand (2017: €90 thousand).

A significant portion (35.3%) of the cash of the Group is, due to compliance of ATHEXClear with the EMIR Regulation, kept at the Bank of Greece (BoG).

Deposits of the Group at the BoG carry a negative interest rate of 0.4% from 16.3.2016 onwards.

Expenses and bank commissions over the same period amounted to €67 thousand (2017: €83 thousand) for the Group and €5 thousand for the Company (2017: €25 thousand). The breakdown of the cash at hand and at bank of the Group is as follows:



	Gro	Group		bany
	30.06.2018	31.12.2017	30.06.2018	31.12.2017
Deposits at the Bank of Greece	29,952	30,685	0	0
Sight deposits in commercial banks	2,457	2,036	1,521	1,246
Time deposits < 3 months	52,532	53,119	30,253	32,722
Cash at hand	9	11	3	2
Total	84,950	85,851	31,777	33,970

5.34. Third party balances in bank accounts of the Group

This essentially is a memo account for the margins that ATHEXClear receives from its Members for the derivatives market and, starting on 16.02.2015, for the cash market. ATHEXClear manages Member margins, which in accordance with the investment policy for deposits, are placed with the BoG.

Implementation of the ATHEXClear investment policy begun together with the application of the new clearing model and risk management in the derivatives market on 1.12.2014. The amounts of €163,548 thousand on 30.06.2018 and €157,598 thousand on 31.12.2017 respectively shown below and in the Statement of Financial Position on 30.06.2018 and 31.12.2017 respectively, concern exclusively Member collaterals in the cash and derivatives markets as well as XNET respectively.

	Group		Company	
	30.06.2018	31.12.2017	30.06.2018	31.12.2017
Clearing Fund collaterals – Cash Market	13,905	10,475	0	0
Additional Clearing Fund collaterals – Cash Market	97,634	99,325	0	0
Clearing Fund collaterals – Derivatives Market	9,319	8,685	0	0
Additional Clearing Fund collaterals – Derivatives Market	41,069	37,548	0	0
Members Guarantees in cash for X-NET (1)	1,621	1,565	1,566	1,565
Third party balances	163,548	157,598	1,566	1,565

(1) Margin received by the Company for the XNET market on 30.06.2018 were kept in commercial bank accounts, as are dormant client balances of the Clearing Fund amounting to €35 thousand. In addition, the amount of €21 thousand concerning returns from interest payments to clients exempted or in the special account is also kept in commercial banks.

5.35. Deferred Tax

The deferred taxes accounts are analyzed as follows:

	Group		Company	
Deferred taxes	30.06.2018	31.12.2017	30.06.2018	31.12.2017
Deferred tax claims	1,202	1,241	1,146	1,173
Deferred tax liabilities	(1,512)	(1,568)	0	0
Total	(310)	(327)	1,146	1,173

The analysis of deferred tax claims and liabilities for the Group is as follows:



Deferred tax claims	Intangible assets	Property plant & equipment	Provisions - Actuarial study & staff retirement obligations	Other provisions	Loss from the sale of securities in previous FY	Total
Balance 1.1.2017	60	97	537	829	136	1,659
(Debit) / credit to the results	(9)	(31)	(6)	58	0	12
(Debit) / credit to other comprehensive income	0	0	9	0	0	9
Balance 31.12.2017	51	66	540	887	136	1,680
(Debit) / credit to the results	0	(14)	0	(82)	0	(96)
(Debit) / credit to other comprehensive income	0	0	0		0	0
Balance 30.06.2018	51	52	540	805	136	1,584

Deferred tax liabilities	Property plant & equipment	Share valuation provision	Total
Balance 1.1.2017	(2,096)	(291)	(2,387)
Debit / (credit) to the results	165	0	165
Debit / (credit) to other comprehensive income	0	215	215
Balance 31.12.2017	(1,931)	(76)	(2,007)
Debit / (credit) to the results	83	0	83
Debit / (credit) to other comprehensive income	0	30	30
Balance 30.06.2018	(1,848)	(46)	(1,894)

The analysis of deferred tax claims and liabilities for the Company is as follows:

Deferred tax claims	Intangible assets	Property plant & equipment	Provisions - Actuarial study & staff retirement obligations	Other provisions	Loss from the sale of securities in previous FY	Total
Balance 1.1.2017	9	97	284	680	136	1,206
(Debit) / credit to the results	3	(31)	41	24	0	37
(Debit) / credit to other comprehensive income	0	0	6	0	0	6
Balance 31.12.2017	12	66	330	704	136	1,248
(Debit) / credit to the results	1	(14)	6	(49)	0	(56)
(Debit) / credit to other comprehensive income	0	0		0	0	0
Balance 30.06.2018	13	52	336	655	136	1,192

Deferred tax liabilities	Share valuation loss provision	Total
Balance 1.1.2017	(291)	(291)
Debit / (credit) to the results	0	0
Debit / (credit) to other comprehensive income	215	215
Balance 31.12.2017	(76)	(76)
Debit / (credit) to the results	0	0
Debit / (credit) to other comprehensive income	29	29
Balance 30.06.2018	(47)	(47)

Other data concerns the tax corresponding to the valuation and sale of participations and securities.



5.36. Equity and reserves

a) Share Capital

The 1st Repetitive General Meeting of shareholders of 13.06.2018 approved a share capital return of \pounds 0.15 to shareholders, with a corresponding reduction in the share par value, as well as the cancellation of 251,000 shares in treasury stock. Thus, the share capital of the Company amounts to \pounds 41,640,120.00, divided into 60,348,000 shares with a par value of \pounds 0.69 per share.

	Number of shares	Par value (€)	Share Capital (€)	Share Premium (€)
Total 31.12.2016	65,368,563	1.08	70,598,048.04	157,084.15
Share capital reduction (May 2017)		(0.24)	(15,688,455.12)	0
Total	65,368,563	0.84	54,909,593	0
Reduction of Share Capital through cancellation of Own Shares	(4,769,563)	0.84	(4,006,432.92)	0
Total 31.12.2017	60,599,000	0.84	50,903,160.00	157,084.15
Share capital reduction		(0.15)	(9,089,850.00)	0
Total	60,599,000	0.69	41,813,310.00	0
Reduction of Share Capital through cancellation of Own Shares	(251,000)	0.69	(173,190.00)	0
Total 30.06.2018	60,348,000	0.69	41,640,120.00	157,084.15

Following the decision of the General Meeting of shareholders of the Company on 20.5.2015 a share buyback program was implemented (see below note c).

b) Reserves

	Gro	Group		bany
	30.06.2018	31.12.2017	30.06.2018	31.12.2017
		(adjusted)		(adjusted)
Regular Reserve (1)	29,506	29,392	28,116	28,116
Tax free and specially taxed reserves (2)	10,736	10,736	10,281	10,281
Treasury stock reserve (3)	(12,669)	(11,681)	(12,669)	(11,681)
Real estate revaluation reserve	15,819	15,819	14,383	14,383
Other (4)	5,983	5,983	5,983	5,983
Special securities valuation reserve (5)	(1,461)	(1,390)	(1,461)	(1,390)
Reserve from stock option plan to employees	1,385	1,385	1,336	1,336
Total	49,298	50,244	45,968	47,028

- (1) ATHEXClear regular reserve: €239 thousand; ATHEXCSD regular reserve: €1,151 thousand.
- (2) Reserves in this category include taxed reserves €595 thousand (ATHEX €141 thousand; ATHEXCSD €454 thousand).
- (3) Reflects the value of the treasury stock purchased minus the treasury stock that was cancelled.
- (4) Concerns a special dividend reserve for 2015- €5,696 thousand; dividend reserve for 2016- €247 thousand; and specially taxed reserves €40 thousand.



(5) The Group has invested part of its cash assets in shares of an ATHEX listed company which it has classified as financial assets at fair value through other income in accordance with IFRS 9 (note 5.32). On 30.06.2018 the shares posted a valuation loss of €100,239.75 which was charged to the special securities valuation reserve from which the amount of €29,069.53 (29% x €100,239.75) was subtracted and transferred to deferred tax. In addition, the relevant valuation loss which had been recognized in fiscal year 2016 and amounted to €1,575,236.15 was transferred from retained earnings to the special securities valuation reserve. Thus the end balance of the special reserve on 30.06.2018 was €1,461,365.33.

c) Share Buyback program

The company completed a share buyback program on 20.4.2017. The program was approved by the 14th Annual General Meeting of shareholders on 20.5.2015 with the following terms:

- Buy back up to 10% of the share capital
- Buyback price per share: from €1.50 to €7.00
- Duration of the program: 2 years (until end of May 2017)
- Purpose of the program: at least 95% of the shares that will be bought back will be cancelled the remaining 5% of the shares may be distributed to the personnel of the Group.

The share buyback program begun on 9.2.2016, and up until 20.4.2017, 5,020,563 own shares were purchased (7.68% of the number of shares outstanding of the company) at an average price of \notin 4.63 per share and a total cost of \notin 23,244,794.

Out of the abovementioned treasury stock, 95% (4,769,563 shares) were cancelled by the 1^{st} Repetitive General Meeting on 9.6.2017. Following the cancellation of the abovementioned number of shares and the \notin 4,006,432.92 reduction in share capital, 251,000 shares in treasury stock, valued at \notin 1,161,717.49 remain in the possession of the Company. Lastly, the Repetitive General Meeting on 13.06.2018 decided to cancel the remaining 251,000 shares in treasury stock with a value of \notin 173,190 and as a result the share capital became \notin 41,640,120.00 and the number of shares outstanding 60,348,000.

d) Capital Requirements

According to the EMIR Regulation (article 45 of the EU 20. 648/2012) a clearing house must keep lines of defense in case of member's default (default water fall).

In accordance with article 35 of the technical standards, for clearinghouses the amount of the own assets of central counterparties that are used as line of defense in case of default is calculated, and in particular:

- The central counterparty maintains and reports separately on its balance sheet the amount of special own assets earmarked for the purposes mentioned in article 45 paragraph 4 of Regulation (EU) 648/2012.
- The central counterparty calculates the minimum amount specified in paragraph 1 by multiplying the minimum capital requirement by 25%, including undistributed profits and reserves for the purposes mentioned in article 16 of Regulation (EU) 648/2012 and by authorization Regulation (EU) 152/2013 of the Commission (1).

The Central Counterparty reviews the minimum amount in question on an annual basis.

Based on the above, as a recognized clearing house, ATHEXClear drafted a report "Methodology for calculating capital requirements", in cooperation with consultants, in which the methodology applied was described in order to estimate the capital requirements for credit risk, counterparty risk, market risk, winding down risk, operating risk and business risk. The methodology applied was based on the following:

- Regulations (EU) 648/2012, (EU) 152/2013 and (EU) 153/2013
- Regulation (EU) 575/2013
- FSA: Prudential sourcebook for Banks, Building Societies and Investment Firms



- o BIRBU 13,4 CCR mark to market method
- BIRBU 5,4 Financial collateral
- BIRBU 3 Standardized credit risk

Based on the above, ATHEXClear regularly calculates its capital requirements which are required in order to fulfill its regulatory obligations on a quarterly basis, and reports it in its financial statements.

If ATHEXClear equity, as calculated above, is less than 110% of the capital requirements, or less than 110% of the €7.5m threshold notification, ATHEXClear will immediately notify the relevant authority (Hellenic Capital Market Commission), and will continue to keep it informed on a weekly basis, until the amount of capital it possesses exceeds the notification threshold.

ATHEXClear's capital requirements on 30.06.2018 are broken down in the table below:

Capital requirements	
Risk type	Capital requirements 30.06.2018
Credit risk (total)	130
Derivatives market	0
Cash market	0
Investment of own assets	130
Market risk	0
Exchange rate risk	0
Operating risk	80
Winding down risk	3,247
Business risk	1,623
Total Capital requirements	5,080
Notification Threshold (110% of capital requirements)	5,588
Additional special resources (25% of capital requirements of 31.12.2017)	1,268

ATHEXClear equity amounting to €30.3m, as reported in the statement of financial position of ATHEXClear on 30.06.2018, exceeds its capital requirements, as calculated above.

The additional special resources of \pounds 1,268 thousand that correspond to 25% of the capital requirements are distributed as follows: \pounds 759 thousand in the cash market and \pounds 509 thousand in the derivatives market on 30.06.2018.

5.37. Provisions

	Gro	Group		pany
	30.06.2018	31.12.2017	30.06.2018	31.12.2017
Staff retirement obligation (5.19)	1,868	1,840	1,159	1,143
Termination provisions	65	350	65	232
Total	1,933	2,190	1,224	1,375
Other provisions	1,360	1,360	1,300	1,300
Total	1,360	1,360	1,300	1,300

For the change in staff retirement obligations, please refer to 5.19.

The change in provisions on 30.06.2018 and 31.12.2017 for the Group and Company is shown below:

Group	Termination provision	Provisions for other risk
Balance on 31.12.2016	150	1,360
Additional provision in the period	200	0
Balance on 31.12.2017	350	1,360
Additional provision in the period	0	0
Provision used	(285)	0
Balance on 30.06.2018	65	1,360

Company	Termination provision	Provisions for other risk
Balance on 31.12.2016	150	1,300
Additional provision in the period	82	0
Balance on 31.12.2017	232	1,300
Additional provision in the period	0	0
Provision used	(167)	0
Balance on 30.06.2018	65	1,300

By taking provisions, the Group and the Company are trying to protect themselves against potential future risks.

5.38. Trade and other payables

All liabilities are short term and, therefore, no discounting on the date of the financial statements is required. The breakdown of suppliers and other liabilities are shown in the following table:

	Gro	up	Com	bany
	30.06.2018	31.12.2017	30.06.2018	31.12.2017
Suppliers	2,487	2,017	1,192	1,502
Suppliers (intra-Group)	0	0	4	0
Checks payable	71	0	0	0
Hellenic Capital Market Commission Fee (1)	594	553	216	202
Tax on stock sales 0.20% (2)	2,017	3,535	0	0
Dividends payable	34	28	34	28
Accrued third party services (3)	211	490	94	295
Contributions payable	598	367	283	206
Share capital return to shareholders (4)	9,171	88	9,171	88
Tax on salaried services	252	238	142	143
Tax on external associates	2	1	1	0
VAT-Other taxes	491	295	398	183
Various creditors	45	85	(7)	0
Total	15,973	7,697	11,528	2,647

(1) The Hellenic Capital Market Commission fee of €594 thousand (compared to €553 thousand in 2017) is calculated based on the value of the trades in the cash and derivatives market and is turned over to



the Hellenic Capital Market Commission within two months following the end of each 6-month period. The amount concerns the first half of 2018.

- (2) ATHEXCSD, as successor to the Central Securities Depository, based on article 9 §2 of Law 2579/88 as amended by Law 2742/99, acts as an intermediary and collects from ATHEX members the tax (0.20%) on stock sales that take place on ATHEX which it turns over to the Greek State. The amount of €2.0m corresponds to the tax (0.20%) on stock sales that has been collected for June 2018 and was turned over to the Greek State in July 2018.
- (3) Accrued third party services include a provision of €115 thousand for building and equipment maintenance, whereas the balance concerns other expense provisions (FTSE, data vendors, Vodafone etc.)
- (4) Includes the obligation to pay share capital returns to shareholders.

5.39. Current income tax and income taxes payable

The management of the Group plans its policy in order to minimize its tax obligations, based on the incentives provided by tax legislation.

Nondeductible expenses mainly include provisions, various expenses as well as amounts which the company considers as not justifiable production expenses in a potential tax audit and which are adjusted by management when the income tax is calculated.

Tax liabilities	Group		Company	
	30.06.2018	31.12.2017	30.06.2018	31.12.2017
Liabilities 31.12	(168)	(3,312)	(464)	(1,052)
Income tax expense	1,195	2,177	388	851
Taxes paid	0	967	0	(263)
Liabilities / (claims)	1,027	(168)	(76)	(464)

The amount of €1,017 thousand shown as Group income tax claim on 30.06.2018 breaks down as follows: ATHEXClear - €58 thousand; ATHEXCSD –€1,045 thousand; ATHEX (parent company) - negative liability of €76 thousand.

	Group		Company	
	30.06.2018	30.06.2017	30.06.2018	30.06.2017
Income Tax	1,195	894	388	312
Deferred Tax (note 5.35)	12	(73)	57	8
Income tax expense	1,207	821	445	320

Reconciliation of the income tax with profits/losses before tax on the basis of the applicable ratios and the tax expense is as follows:



	Gro	Group		Company	
Income tax	30.06.2018	30.06.2017	30.06.2018	30.06.2017	
Profits before taxes	3,965	2,347	2,263	1,827	
Income tax rate	29%	29%	29%	29%	
Expected income tax expense	1,150	681	656	530	
Tax effect of non-taxable income	0	0	(261)	(234)	
Tax effect of non-deductible expenses	57	140	50	24	
Income tax expense	1,207	821	445	320	

Non-taxable income refers mainly to dividend income from subsidiaries, which is eliminated on a consolidated basis. Thus the tax rate calculated on the accounting profits increases, since the corresponding taxable profits are larger. Furthermore, the resulting effective tax rate on the consolidated profits is larger than the nominal tax rate in effect because – during the current fiscal year- there are intra-Group transactions.

The losses from the bank bonds have a different accounting treatment in IFRS compared to tax accounting, and are the main reason for the creation of deferred tax.

Tax Compliance Report

For fiscal years 2011 to 2015, the Greek Sociétés Anonymes and Limited Liability Companies whose annual financial statements must be audited were required to obtain an "Annual Certificate", as provided for in §5 article 82 of Law 2238/1994 and article 65A Law 4174/2013, which is issued after a tax audit carried out by the same statutory auditor or audit firm that audits the annual financial statements. After completion of the tax audit, the statutory auditor or the audit firm issues to the company a "Tax Compliance Report" which is then submitted electronically to the Ministry of Finance.

Starting with fiscal year 2016, the issuance of an "Annual Certificate" is optional. The tax authorities reserve the right to carry out a tax audit within the established framework as defined in article 36 of Law 4174/2013.

Unaudited fiscal years

The status of the tax audits for the companies of the Group, by fiscal year, is as follows:

	2008	2009	2010	2011	2012	2013	2014			
ATHEX to 30.06.2014	х	х	-	х	х	х	х	2015	2016	2017
ATHENS EXCHANGE (ATHEX)		appeal		x	x	x	x	x	x	+
ATHEXCSD (former TSEC)	х	х	-	x	х	x	х	x	x	+
ATHEXClear	х	х	-	х	х	х	х	х	х	+

(-) Tax audit has not begun

(x) Tax audit completed

(+) Tax audit in progress

ATHENS EXCHANGE (ATHEX): An audit order issued by the Audit Center for Large Enterprises (KEMEP) for 2010, the only unaudited fiscal year, was received.

ATHEX: (see below concerning the tax audit for fiscal years 2008-2010).

For fiscal year 2011 the companies of the Group have been audited by PricewaterhouseCoopers S.A., and for fiscal years 2012-2016 they have been audited by Ernst and Young S.A. and have received clean "Tax Compliance Reports" in accordance with the regulations in effect (article 82, §5 of Law 2238/1994 for fiscal years 2011-2013 and article 65A of Law 4174/2013 for fiscal years 2014-2015).

For fiscal year 2017 the tax audit is already in progress by PricewaterhouseCoopers S.A. in accordance with article 65A of Law 4174/2013, and the relevant tax certificate is expected to be granted by the end of the 3rd quarter 2018. At the conclusion of the tax audit, management of the Company does not expect that any significant tax obligations will arise besides those recording and reflected in the financial statements.

Tax audit of the Company for fiscal years 2008, 2009 and 2010

On 30.9.2016, within the time limits of the law, the Company filed an administrative appeal in accordance with article 63 of Law 4174/2013 at the Dispute Settlement Directorate (DED) of the General Secretariat of Public Revenue (GGDE), against the findings of the tax audit, and at the same time paid 100% of the amount due i.e. €1,562 thousand, in order to avoid the accumulation, calculation and assessment of interest for the duration of the suspension of the sum due (article 53 §1 of law 4174/2013).

The DED finding, which was received on 15.2.2017, reduces the total amount by ξ 579 thousand, to ξ 983 thousand. This difference has already been offset with an equal amount of Company tax obligations by the appropriate tax office. The Company has further appealed (16.03.2017) to the Administrative Courts in order to reduce the tax and penalties assessed by the tax audit. The Company received a summons from the Administrative Court of Appeals of Athens to attend the hearing set for March 6th 2018. The decision is expected in the next few months.

5.40. Related party disclosures

The value of transactions and the balances of the Group with related parties are analyzed in the following table:

	Group		Company		
	30.06.2018	30.06.2017	30.06.2018	30.06.2017	
Remuneration of executives and members of the BoD	675	649	477	476	

The intra-Group balances on 30.06.2018 and 31.12.2017, as well as the intra-Group transactions of the companies of the Group on 30.06.2018 and 30.06.2017 are shown below:

	INTRA-GROUP	BALANCES (in €) 30-06-2	018	
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Claims	0	383,621	(
	Liabilities	0	3,962	(
ATHEXCSD	Claims	3,962	0	120,32
	Liabilities	383,621	0	1,60
ATHEXCLEAR	Claims	0	1,600	(
	Liabilities	0	120,323	



INTRA-GROUP BALANCES (in €) 31-12-2017							
		ATHEX	ATHEXCSD	ATHEXCLEAR			
ATHEX	Claims	0	569,926	68,090			
	Liabilities	0	0	0			
ATHEXCSD	Claims	(0)	0	1,261,736			
	Liabilities	569,926	0	6,637			
ATHEXCLEAR	Claims	0	6,637	0			
	Liabilities	68,090	1,261,736	0			

	INTRA-GROUP REVEN	IUES-EXPENSES (in €) 30	0-06-2018	
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Revenue	0	207,873	54,911
	Expenses	0	155,669	(
	Dividend Income	0	802,600	(
ATHEXCSD	Revenue	155,669	0	2,975,183
	Expenses	207,873	0	8,124
ATHEXCLEAR	Revenue	0	8,124	(
	Expenses	54,911	2,975,181	

	INTRA-GROUP REVEN	UES-EXPENSES (in €) 30	-06-2017	
		ATHEX	ATHEXCSD	ATHEXCLEAR
ATHEX	Revenue	0	215,789	50,20
	Expenses	0	151,164	
	Dividend Income	0	802,600	(
ATHEXCSD	Revenue	151,164	0	2,587,74
	Expenses	215,789	0	6,77
ATHEXCLEAR	Revenue	0	6,770	
	Expenses	50,204	2,587,745	

Intra-Group transactions concern: the annual fee for trade settlement (art. 1 decision 1 on fees), settlement instructions (art. 1 decision 1 on fees), support services (accounting, security, administrative services etc.), IT services, as well as PC support services, which are invoiced at prices comparative to those between third parties.

5.41. Profits per share and dividends payable

The BoD of the Athens Exchange proposed the distribution of €0.05 per share, i.e. a payout of €3,029,950, as dividend from the profits of fiscal year 2017, as well as the return of capital to shareholders of €0.15 per share, i.e. a payout of €9,089,850. The actual amounts per share will be adjusted to €0.050208 and €0.1506239 respectively, due to the existence of treasury stock (which is not entitled to receive cash distributions). The proposals of the BoD for the distribution of dividend and the return of capital were approved by shareholders at the 17^{th} Annual General meeting on 30.5.2018 and the 1^{st} Repetitive GM on 13.06.2018 respectively.

The net after tax earnings of the Group in the 1^{st} half of 2018 were \notin 2.8m or \notin 0.05 per share, while after including other comprehensive income, earnings were \notin 2.7m thousand or \notin 0.045 per share. Following the

share capital reduction of the Company due to the cancellation of treasury stock (note 5.36), the number of shares outstanding of the Company became 60,348,000.

5.42. Contingent Liabilities

The Group is involved in legal proceedings with employees, members of the Athens Exchange, listed companies as well as with third parties. The management of the Group and its legal counsel estimate that the outcome of these cases will not have a significant effect on the financial position or the results of the operation of the Group and the Company.

In order to reduce client receivables, the Group takes all legal courses of action provided by the law and the Regulations. In this context, out-of-court complaints and lawsuits have been submitted, which will be judged in court. A significant part of the receivables is estimated to be recoverable by the companies of the Group.

5.43. Events after the date of the financial statements

There is no event that has a significant effect in the results of the Group and the Company which has taken place or was completed after 30.06.2018, the date of the 1st half 2018 interim financial statements and up until the approval of the interim financial statements by the Board of Directors of the Company on 30.07.2018.



Athens, 30 July 2018

THE CHAIRMAN OF THE BOD GEORGE HANDJINICOLAOU

THE CHIEF EXECUTIVE OFFICER
SOCRATES LAZARIDIS

THE CHIEF FINANCIAL OFFICER VASILIS GOVARIS

THE DIRECTOR OF FINANCIAL MANAGEMENT

CHRISTOS MAYOGLOU

THE DEPUTY DIRECTOR OF FINANCIAL CONTROL, BUDGETING & INVESTOR RELATIONS

CHARALAMBOS ANTONATOS